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JAMAICA

# WEATHER REPORT.

FOR THE MONTH OF

JANUARY, 1933.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32°, gravity at Lat. 45° and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small four-cup instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds cumulus and the Upper clouds, cirrus and cirro-stratus.

The rainfall is measured at 7 a.m., and entered as having fallen on the previous day.

The 75th Meridian Time West of Greenwich adopted from 1st February, 1912.

## METEOROLOGICAL RESULTS.

STATIONS.	Elevation.	Bar. Pressure.		Temperature.				Extreme Temperature					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Date.	Min.	Date.	Range.
	ft.	ins.	ins.	°	°	°	°	°	°	°	°	°	°
Morant Point Light House	8	29.997	29.957	76.5	81.0	82.0	73.5	8.5	82.9	16	62.0	28	20.9
Kingston	24	29.966	29.905	68.8	84.4	85.9	67.7	18.2	89.9	4	64.8	21	25.1
Negril Point Light House	33	29.984	29.930	70.9	82.7	85.0	67.8	17.2	88.5	4	63.5	4	25.0
Castleton Gardens	496			65.3	79.4	83.2	64.3	18.9	85.0	12*	59.0	25*	26.0
Hope Gardens†	668	30.022	29.926	67.2	83.0	85.1	65.7	19.4	88.0	4*	64.0	14*	24.0
Boon Hall	970	29.978	29.900	60.4	81.6	84.4	59.8	24.6	89.5	28	55.5	23	34.0
Hill Gardens	4,900	25.240	25.229	60.2	62.9	66.3	52.1	14.2	70.0	31	52.0	20*	18.0

STATIONS.	Elevation.	Dewpoint and Humidity.					Rainfall.	Wind per diem.	Wind, direction from and miles per hour.				Amount of Cloud Lower, Middle and Upper.					
		7 a.m.			3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		ft.	°	%	°	%			ins.	Mls.		m.		m.	L.	M.	U.	L.
Morant Point Light House	8	70	81	71	72	1.28	241	NE	10.0	NE	8.0	1.3	2.4	0.4	0.1	3.1	0.6	
Kingston	24	63	82	69	60	0.67	156	N	4.4	SE	13.3	2.4	0.5	0.9	2.2	2.6	0.4	
Negril Point Light House	33	68	89	74	74	1.70	203	NE	9.3	Var.	11.3	0.4	0.5	1.1	1.6	3.4	0.5	
Castleton Gardens	496	63	95	76	86	0.19	..	..	..	..	..	..	..	..	..	..	..	
Hope Gardens	668	62	84	67	58	1.26	..	..	..	..	..	..	..	..	..	..	..	
Boon Hall	970	59	93	66	60	0.87	..	NE	2.2	W	6.9	..	..	..	..	..	..	
Hill Gardens	4,900	55	86	58	85	0.35	..	..	..	..	..	..	..	..	..	..	..	

\*And on other days. †Hope Gardens Bar. read at 9 a.m. and 3 p.m.

# **National Oceanic and Atmospheric Administration**

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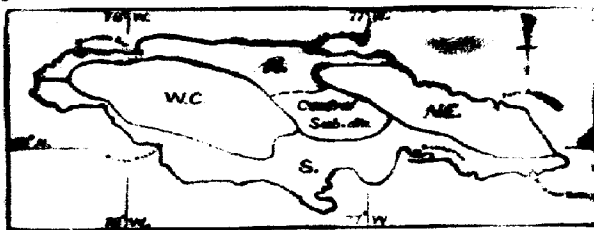
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March 28, 2002

## THE RAINFALL.

The first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1919." In obtaining the mean Rainfall for the month only those stations are considered for which the average Rainfall has been also given in the last column so that the results derived from these two columns are comparable for each Division. These results are given in the comparative table at the end of this Rainfall Return so as to arrive at the mean for the whole Island, embracing the four Divisions.

The Northern Division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-divisions; the Southern Division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central Divisions are the remaining parts of the Island bounded by the sea and the other Divisions.

A Map showing these Rainfall Divisions is published in Mr. Maxwell Hall's "Rainfall of Jamaica," following page 27, 1911 Edition, and of page 20 of 1923 Edition, an outline of which is given below.



January, 1933.

STATIONS.	January, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
	Amount.	Date.			
<b>NORTH-EASTERN DIVISION, contd.</b>	Ins.	Ins.			Ins.
Iter Boreale					
Enfield	3.45	0.80	7	9	..
Agualta Vale	1.91	0.54	10	12	7.44
Castleton Gardens	0.18	0.10	18	2	9.29
Water Valley	1.16	0.57	11	6	7.96
Albany	1.88	0.57	11	10	4.63
Lawrence Tavern	0.10	0.10	10	1	2.69
Richmond, St. Mary	0.92	0.37	18	3	7.20
Quebec, St. Mary	3.18	1.29	17	8	6.36
Above Rocks	0.00	..	..	0	..
Glengoffe	0.00	..	..	0	..
Carew Castle	0.15	0.15	9	1	2.72
Hampstead, St. Mary	1.76	0.35	10	12	10.18
Windsor Castle do.	0.88	0.30	18	7	..
Troja	0.18	0.13	20	2	..
Pear Tree Grove	0.00	..	..	0	..
Guy's Hill	0.46	0.10	19	6	6.24
Lucky Hill	1.03	0.39	17	6	7.45
Rio Hoe	0.73	0.30	18	4	5.76
Unity Valley	0.36	0.11	20	5	4.93
Moneague	0.68	0.22	17	6	4.84
Claremont	1.45	1.10	17	3	5.91
Averham Park	1.24	0.95	17	6	7.06
Albion	0.79	0.40	17	5	5.37
<b>NORTHERN DIVISION (N).</b>					
Port Maria	3.25	1.60	17	8	5.85
Wentworth	3.11	1.25	17	10	..
Eden Park	1.59	0.67	21	3	..
Oracabessa	3.04	0.60	17	8	..
Huddersfield	2.07	0.75	19	4	..
Ocho Rios	1.80	0.65	17	6	4.73
Bogue, Ocho Rios	1.76	1.08	17	2	5.68
Drax Hall	4.04	2.04	17	5	6.03
Rockfield	2.76	1.50	19	5	7.67
Liberty Hill	..	..	..	..	6.53
St. Ann's Bay	2.73	1.73	17	10	5.22
Seville	..	..	..	..	5.76
Richmond Estate	2.52	1.45	17	5	5.82
Llandoverly	..	..	..	..	5.99
Runaway Bay	1.48	0.72	17	4	2.85
Knapdale	..	..	..	..	..
Alexandria	1.42	0.90	25	3	2.79
Bel-Air	2.55	1.30	17	7	..
Brown's Town	1.81	0.84	17	5	6.01
Watt Town, St. Ann.	0.50	0.50	9	1	2.82
Home Castle	1.50	1.30	17	2	5.52
Richmond Pen	0.20	0.05	16	4	3.34
Bryan Castle	..	..	..	..	4.77
Braco	..	..	..	..	4.15
Arcadia	0.58	0.46	17	2	4.76
Vale Royal	0.33	0.33	17	1	5.03
Harmony Hall	0.88	0.43	16	4	4.02
Duncans	0.78	0.39	17	3	..
Clark's Town	..	..	..	..	..
Falmouth	0.78	0.42	17	3	3.82
Canaan	..	..	..	..	3.36
<b>NORTH-EASTERN DIVISION. (N.E.)</b>	Ins.	Ins.			Ins.
Manchioneal	3.90	1.21	10	10	5.61
Priestman's River	3.90	0.70	10	10	5.66
Bath	1.85	0.40	12	11	6.12
Barrett's Gap	2.43	0.38	23	14	..
Millbank	4.90	0.79	10	18	..
Moore Town	4.28	1.20	17	14	16.89
Port Antonio	4.76	1.15	17	14	8.71
Passley Garden	2.65	0.61	23	12	..
Fellowship	5.06	0.72	17	18	12.54
Johnson River Br.	1.15	0.72	9	6	3.30
Trinity Ville	..	..	..	..	..
Shrewsbury	5.13	0.78	7	22	15.95
Hope Bay	1.84	0.28	23	18	..
Cedar Valley	0.62	0.32	9	3	3.65
Moy Hall	0.64	0.30	17	5	3.65
Paradise	3.99	0.90	6	14	..
Lennox	3.05	0.83	10	10	..
Greenvale	3.17	0.84	3	8	20.33
Spring Garden	3.08	0.75	11	13	8.92
Hill Gardens	0.35	0.35	17	1	7.10
Buff Bay	3.82	1.00	10	10	9.33
Orange Vale	3.05	0.43	6	4	..
Belvedere, Portland	2.90	1.50	7	6	12.41
Windsor Castle, do.	3.27	1.00	6	9	6.37
Balcarras	2.87	1.05	3	8	..
Mt. Holstein	0.53	0.28	17	8	16.06
Cedar Hurst	0.31	0.21	25	4	..
Hardware Gap	0.03	0.03	25	1	5.70
Rose Hill	0.59	0.42	25	2	4.11
Hermitage	1.17	0.75	15	4	..
Mount James	1.68	1.45	25	4	..
Stony Hill Ind. Sch.	1.73	1.05	2	5	2.96
Boon Hall	0.87	0.34	25	8	..
Brandon Hill	0.00	..	..	0	..

STATIONS.	January, 1933.					STATIONS.	January, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
NORTHERN DIVISION, contd.						WEST-CENTRAL DIVISION, contd.					
Grange	0.14	0.14	17	1	..	Ulster Spring	0.67	0.35	17	3	3.42
Adelphi	0.00	..	..	..	..	Marshall's Pen	1.52	1.06	14	4	2.84
Success	0.00	..	..	0	2.12	Greenvale	1.08	0.70	2	6	..
Rose Hall	0.00	..	..	0	3.42	Albert Town	0.36	0.21	11	3	2.81
Cinnamon Hill	0.00	..	..	0	3.49	Craig Head	0.50	0.40	11	2	..
Tryall	0.00	..	..	0	2.12	Warsop	0.36	0.08	11	5	..
Running Gut	0.00	..	..	0	3.54	Troy	1.50	0.70	10	4	2.02
Spring Estate	0.00	..	..	0	3.83	Wallingford	..	..	..	..	1.80
Friendship	0.15	0.15	17	1	3.74	Balaclava	1.13	0.56	2	5	1.81
Retirement	0.23	0.23	10	1	3.51	Wakefield	..	..	..	..	..
Montego Bay	0.00	..	..	..	2.88	Maggotty	3.45	1.05	25	9	2.90
Anchovy	0.00	..	..	..	2.85	Lacovia	2.76	0.66	16	8	..
Bamboo-Hanover	0.39	0.39	12	1	..	Ipswich	2.72	0.68	9	12	..
Blue Hole	0.00	..	..	..	3.15	Kempshot	0.00	..	..	0	3.76
Kew	0.00	..	..	..	2.44	Garlands	0.54	0.27	2	2	..
Lucea	0.01	0.01	28	1	3.13	Mocho, St. James	0.94	0.62	12	3	..
Haughton Court	..	..	..	..	2.58	Bandon Pen	0.00	..	..	0	..
Cousins Cove	..	..	..	..	..	Catadupa	0.87	0.45	9	4	2.36
Green Island	1.71	1.13	23	3	2.38	Cambridge, St. Jas.	0.85	0.75	12	2	2.33
Haughton Hall	..	..	..	..	..	New Market	3.15	0.92	7	10	2.47
CENTRAL SUB-DIVISION.						Kew Park	0.19	0.10	9	2	2.28
Knollis	0.67	0.48	8	2	..	Montpelier	..	..	..	..	1.61
Highgate	1.80	1.18	8	4	..	The Bog	2.22	0.61	7	11	2.73
Rio Magno	0.17	0.09	20	3	..	Bethel Town Dist.	0.84	0.22	23	9	3.41
Riversdale	0.12	0.12	25	1	..	Burnt Ground	0.64	0.64	12	1	2.58
Headworks, R.C.C.	1.35	0.80	14	4	1.62	Haughton Grove	0.35	0.35	12	1	3.04
Bog Walk	0.79	0.56	1	3	..	Darliston	4.18	1.61	21	12	2.93
Linstead	0.00	0.00	..	..	2.30	Bluefields	3.34	0.89	11	11	2.81
Ewarton	0.03	0.03	19	1	..	Whithorn	3.07	1.11	11	6	2.38
Cave Valley	..	..	..	..	2.21	Water Works Pen	2.68	0.70	23	9	2.03
Guanaboa Vale	2.22	1.22	10	8	..	Askenish	0.80	0.50	7	2	3.48
Point Hill	2.05	1.04	24	4	3.41	Grange Hill	5.89	3.20	23	7	2.55
Brown's Hall	1.99	1.32	24	4	..	King's Vale	2.32	2.28	23	2	3.05
Bellas Gate	0.42	0.26	7	3	1.66	SOUTHERN DIVISION (S.)					
Rock River	0.00	0.00	..	..	2.06	Morant Point L.H.	1.28	0.41	10	12	4.16
Crofts Hill	0.00	0.00	..	..	..	Golden Grove	2.46	0.68	17	10	..
Far Enough	0.19	0.08	8	3	..	Pleasant Hill	2.19	0.80	10	9	4.83
Suttons	0.35	0.31	18	2	..	East Prospect	1.77	0.50	12	10	3.99
Colonel's Ridge	0.62	0.62	26	1	..	Morant Bay	1.38	0.42	17	5	2.84
Chapelton	0.31	0.31	1	1	2.09	Acoulus Valley	..	..	..	..	..
Crooked River	0.47	0.27	8	4	..	Yallahs	0.40	0.20	17	2	..
James Hill	0.38	0.23	11	3	..	Easington	0.38	0.23	9	2	1.60
Frankfield	0.71	0.25	8	4	1.45	Mavis Bank	0.45	0.33	17	3	..
WEST-CENTRAL DIVISION (W.C.)						Bull Bay	0.32	0.32	17	1	0.73
Mocho, Clarendon	1.14	0.25	8	4	2.00	Dallas Castle	0.77	0.66	17	2	..
Clarendon Park	2.83	1.96	13	5	..	Gordon Town	1.44	0.96	14	4	3.20
Porus	0.81	0.48	8	3	..	Irish Town	0.33	0.18	25	4	2.22
Borobridge	0.45	0.33	25	2	..	Hope Gardens	1.26	1.05	14	5	1.79
Spaldings	0.12	0.04	14	4	2.70	Waieka	..	..	..	..	..
Williamsfield	2.73	2.19	14	8	..	Ivor	..	..	..	..	..
Brokenhurst	1.00	0.31	10	6	3.08	Barbican	0.84	0.48	14	3	..
Shooters Hill	1.32	0.85	14	4	2.05	Plumb Point L.H.	0.21	0.09	17	3	0.74
Lowe River	..	..	..	..	3.60	King's House Gar.	1.45	0.80	17	3	1.35
Christiana	0.31	0.19	1	5	2.37	Upper Kingston	0.58	0.46	14	2	0.55
Clifton Hill	1.02	0.50	8	5	2.10	Kingston P.W.O.	0.67	0.55	14	2	0.87
Kendal, Manchester	2.14	1.50	14	4	2.24	Halfway Tree	0.66	0.42	17	3	0.97
Mereworth	2.16	1.80	14	4	..	Clifton Pen	0.67	0.55	17	2	0.71
Mandeville	2.42	1.79	14	9	3.03	Red Hills	4.33	1.35	14	4	..

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		Amount.	Date.					Amount	Date.		
<b>SOUTHERN DIVISION, contd.</b>	Ins.	Ins.			Ins.	<b>SOUTHERN DIVISION, contd.</b>	Ins.	Ins.			Ins.
Quarantine Station	0.52	0.30	18	5	0.65	Great Valley, Man.	1.61	0.90	14	3	2.09
Hematine	1.02	0.50	17	3	1.12	Alligator Pond	3.00	2.95	14	2	1.39
Spanish Town	0.96	0.67	13	4	1.32	Fairfield	1.80	1.57	14	7	2.38
The Stewartry	0.97	0.57	13	3	..	Lititz	1.88	1.4	14	5	1.37
Hog Hole, St. Cath.	1.21	0.93	13	5	1.54	Myersville	1.77	1.	14	4	..
Hartlands	..	..	..	..	1.45	Gilnock	..	..	..	..	..
Old Harbour	0.20	0.13	17	2	2.03	Southfield, St. Eliz.	1.62	1.40	14	2	2.02
May Pen	0.48	0.22	17	6	1.36	Windsor, St. Eliz.	1.26	0.60	14	8	..
Glen Muir	0.00	..	..	0	..	Torrington	1.55	0.80	14	3	2.26
Cottage	0.57	0.35	26	3	..	Unity	0.91	0.36	13	4	..
Belle Plain	1.02	0.28	13	7	..	Santa Cruz	1.49	0.26	13	8	2.51
Milk River	0.10	0.10	13	1	1.75	Pedro Plains	0.40	0.30	14	2	1.60
Retrieve	0.11	0.11	13	1	1.21	Mountainside	2.86	1.64	13	5	1.64
Hog Hole, S. Man.	..	..	..	..	1.83	Fort Charles	1.11	0.72	13	3	..
Stone's Hope	0.95	0.55	13	4	2.42	Black River	1.31	0.63	13	5	1.62
Newport, Man.	1.62	0.90	14	6	2.56	Font Hill	4.40	0.80	24	10	1.76
						Mount Edgecombe	2.01	0.50	8	9	2.07
						Sweet River	2.09	0.47	8	8	1.92
						Sav.-la-Mar	1.34	0.23	21	7	1.66
						Little London	1.66	0.39	23	8	1.90
						Retreat	3.00	1.19	23	5	1.82
						Negril Point L.H.	1.70	1.09	23	7	1.73

## NOTES.

## SHOCKS OF EARTHQUAKE IN JANUARY, 1933.

COMPARATIVE TABLE OF RAINFALL  
AND RAINY DAYS.

COMPARATIVE TABLE OF RAINFALL AND RAINY DAYS.					Date.	Standard Time (Approx.)	Intensity.	Notes: where, etc.
DIVISIONAL  AND  ISLAND RAINFALL.	January.							None Reported.
	Rainfall.		Rainy Days.					
	1932	Ave.	1932.	Ave.				
	Ins.	Ins.						
North-Eastern	1.86	7.68	7	13				
Northern	0.90	3.66	3	8				
West-Central	1.65	2.80	5	6				
Southern	1.32	1.84	5	6				
The Island means	1.43	4.00	5	8				

N.B. IT IS PARTICULARLY REQUESTED TO SEND ALL RAINFALL POSTCARDS IN NOT LATER THAN THE 6TH OF EACH MONTH.

## THE ISLAND—JANUARY.

The Mean Rainfall for the Island was very deficient in all Divisions, particularly the Northern.

Most of the rain appears to have fallen during the second fortnight. The greatest total fall for the month was 5.89 inches at Grange Hill in the West Central Division, and the heaviest fall in 24 hours was 3.20 inches at the same station on the 23rd.

The Mean number of rainy days was 5, the average being 8. The greatest number was 22 at Shewsbury in the North-eastern Division.

No rain fell at the following Stations:—Brandon Hill, Above Rocks, Glengoffe, Pear Tree Grove, Success, Rose Hall, Cinnamon Hill, Tryall, Running Gut, Spring Estate, Montego Bay, Anchovy, Blue Hole, Kew, Haughton Court, Linstead, Rock River, Crofts Hill, Kempshot, Bandon Pen, and Glen Muir.

The Mean Rainfall in each parish is given below:—

	Inches.		Inches.
Kingston .. ..	0.49	St. James .. ..	0.22
St. Andrew .. ..	0.91	Hanover .. ..	0.43
St. Thomas .. ..	1.38	Westmoreland .. ..	2.44
Portland .. ..	3.32	St. Elizabeth .. ..	1.99
St. Mary .. ..	1.96	Manchester .. ..	1.51
St. Ann .. ..	1.60	Clarendon .. ..	0.54
Trelawny .. ..	0.69	St. Catherine .. ..	0.77

## CITY OF KINGSTON.

The total rainfall for January was 0.67 inch; the 59-year normal being 0.87 inch. The number of rainy days was 2, against the average of 4.5 for 49 years. Greatest fall in 24 hours was 0.55 inch on 14th. Upper boundary of Kingston gauged 0.58 inch with 2 rainy days. Distant rain to north and north-east on two days and to south-east on one day.

The mean barometric pressure was 29.949 ins., and the 33-year normal 29.974 ins., shewing 0.025 inch below the normal. Highest barometer reading 30.027 ins. on 17th at 3 p.m., and lowest 29.875 ins. on 28th at 3 p.m. (correc. for diur. var.)

Mean monthly temperature, based upon four observations per day was 76.2 degs., or 0.4 deg. above normal. The highest maximum temperature was 89.9 degs. on 4th, and the lowest minimum 64.8 degs. on 21st. Then, the lowest maximum was 82.9 degs. on 20th, and highest minimum 72.1 degs. on 2nd. The greatest range was 23.0 degs. on 21st, and least range 13.9 degs. on 2nd.

The mean daily miles of wind registered was 156, as compared with the 20-year normal of 166. The greatest number of miles of wind in one day was 210 on 11th, and the least 121 on 29th.

Mean relative humidity for the month was 73%, as compared with the normal, for 33 years, of 78%, shewing 5% below the normal, owing to deficiency of rainfall. The mean 7 a.m. was 82% and the mean 3 p.m. 60%. Lowest 7 a.m. 75% on 14th, and lowest 3 p.m. 45% on 4th.

The sky was overcast in the early morning on 11 occasions, and in the afternoon on 10 occasions.

The total evaporation for the month of January was 4.48 ins., and the 10-year normal 5.05 ins.

Mean daily number of sunshine hours, 8.2.

## NEGRIL POINT LIGHT HOUSE.

A Table shewing the mean Meteorological results, for the Station at Negril Point Light House (situated at the extreme west of the Island), for the year 1932, is appended. The extreme maximum temperature was 93.6 degs. on 10th September, and the extreme minimum 62.9 degs. on 1st March. The greatest monthly rainfall was 9.70 ins. in November, which is more than double that of the normal for that month, owing to the passing hurricane on 8th November. The least was 0.53 inch in February. The year's rainfall shews a total of 54.55 inches, which nearly corresponds with the normal of 54.09 ins.

The observations were conducted by Mr. J. S. Brownhill, the Superintendent of the Light House.

## CAYMAN ISLANDS.

Government House, Georgetown, Grand Cayman.—For the month of January, 1933, the total rainfall was 1.03 inch. The greatest fall in 24 hours was 0.56 on 10th with 4 rainy days.

J. F. BRENNAN,  
Government Meteorologist.

Kingston, February 20th, 1933.

# METEOROLOGICAL RESULTS FOR THE YEAR 1932.

NEGRIL POINT, JAMAICA, (ELEVATIONS, See Foot Note.)

Month.	Barometer Pressure.		TEMPERATURE. (Fah.).						Extremes for Month.			Dewpoint and Humidity.			Rain-fall.	Rainy Days.
	7 a.m.	3 p.m.	Mean.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Min.	Range.	7 a.m.	3 p.m.			
January	Ins. 29.999	Ins. 29.949	76.9	71.2	83.6	86.1	68.8	17.3	89.1	63.5	25.6	° 65	° 69	% 62	Ins. 1.81	No. 8
February	30.014	.954	76.5	70.2	83.3	86.7	67.7	19.0	89.3	64.0	25.3	° 63	° 68	% 61	0.53	5
March	29.958	.917	77.0	72.2	82.7	85.3	69.6	15.7	90.9	62.9	28.0	° 68	° 70	% 67	1.69	5
April	.914	.870	78.4	75.1	83.2	86.1	71.2	14.9	89.5	67.1	22.4	° 71	° 73	% 72	5.65	16
May	.917	.881	79.1	76.9	83.5	86.2	71.9	14.3	89.5	63.9	25.6	° 71	° 74	% 72	6.80	15
June	.914	.884	80.6	78.6	84.3	87.7	73.7	14.0	90.9	70.4	20.5	° 73	° 75	% 74	5.70	10
July	.949	.929	81.0	78.1	85.1	90.1	72.6	17.5	92.2	71.1	21.1	° 71	° 75	% 72	5.51	17
August	.914	.885	80.8	77.4	85.1	89.2	73.5	15.7	91.2	69.7	21.5	° 73	° 75	% 72	7.04	17
September	.882	.842	81.9	77.7	87.0	90.6	74.4	16.2	93.6	72.0	21.6	° 74	° 76	% 69	3.70	10
October	.871	.830	80.5	76.2	84.9	89.4	73.4	16.0	93.2	69.9	23.3	° 72	° 76	% 73	3.95	15
November	.867	.821	78.6	75.6	83.0	84.9	72.9	12.0	90.2	66.6	23.6	° 72	° 74	% 74	9.70	6
December	29.967	29.921	78.1	73.8	83.1	86.6	70.9	15.7	89.6	66.1	23.5	° 70	° 75	% 77	2.47	3
Means	29.931	29.890	79.1	75.3	84.1	87.4	71.7	15.7	90.8	67.3	23.5	° 70	° 73	% 70		
Totals	..	..	..	..	..	..	..	..	..	..	..	..	..	..	54.55	127

Barometer pressure reduced to Standard of Kew, 32 degrees, gravity at Lat, 45° and Mean Sea Level. The 75th Meridian West of Greenwich, Standard Time used. Altitude of Barometer above Mean Sea Level 33 ft. Height of Thermometer above ground 4 ft. 6 in. Height of Rain Gauge above the ground 6 ft. 6 in. Height of Anemometer above the ground 94 ft.

NEGRIL POINT, 1932—MEAN RESULTS, *contd.*

Month.	Wind Miles per diem.	Wind from and Miles per hour.			Clouds: in tenths.				Weather Conditions, etc.		
		7 a.m.	3 p.m.	11 p.m.	Lower.		Middle.			Upper.	
					7 a.m.	3 p.m.	7 a.m.	3 p.m.		7 a.m.	3 p.m.
January	226	N.E. 9.5	Var. 11.7	N.E. 8.8	0.8	1.4	0.9	4.4	2.2	0.1	Pair, 7; cloudy, 12; overcast, 4; rain, 8; distant lightning, 3; distant thunder, 1; thunderstorm, 17 days; rainfall, above the average.
February	219	N.E. 8.9	Var. 11.9	N.E. 7.6	0.3	2.6	1.0	2.8	0.5	0.1	Clear, 5; cloudy, 17; overcast, 2; rain on 5 days; rainfall about $\frac{1}{4}$ the avg; shocks of earthquake on the 3rd and 7th.
March	245	N.E. 8.4	Var. 14.0	E.N.E. 8.9	1.9	3.5	1.2	1.6	2.2	1.7	Clear, 4; cloudy, 12; overcast, 10; rain, 5; distant thunderstorms, 1 day; Bar. dep. on 5th & 6th; northern on 14th; rainfall below the avg.
April	213	E.N.E. 7.8	E. 10.9	E.N.E. 7.5	2.4	3.3	1.4	3.4	4.9	1.6	Clear, 4; overcast, 10; rain, 16; thunderstorm, 2; distant thunder on 6 days; northern on 13th; rainfall about twice the average.
May	204	E.N.E. 7.0	Var. 11.2	E.N.E. 7.1	1.3	2.3	0.9	4.8	6.2	1.1	Clear, 2; cloudy, 4; overcast, 10; rain, 15; thunderstorm, 4; distant thunder, 8; distant lightning on 7 days; rainfall the average.
June	221	E.N.E. 6.0	S.E. 12.3	E.N.E. 8.5	1.3	2.3	1.1	5.2	5.4	1.4	Cloudy, 5; overcast, 5; rain, 10; thunderstorm, 5; distant thunder, 16; distant lightning on 12 days; rainfall the average.
July	175	N.E. 6.7	Var. 11.0	N.E. 7.3	0.0	1.3	0.3	6.4	6.5	1.4	Cloudy, 8; overcast, 6; rain, 17; thunderstorm, 11; distant thunder, 21; distant lightning on 18 days; rainfall the average.
August	170	N.E. 7.0	Var. 8.8	E.N.E. 7.1	0.6	3.1	0.5	4.3	6.1	1.7	Cloudy, 5; overcast, 9; rain 17; thunderstorm, 9; distant thunder and lightning on 22 days; rainfall the average.
September	196	E.N.E. 6.7	S. 11.4	E.N.E. 6.8	1.0	1.0	0.6	4.3	4.4	2.2	Clear, 2; cloudy, 8; overcast, 10; rain, 10; thunderstorm, 6; distant thunder, 11; distant lightning on 14 days; Bar. dep. on 28th; rainfall half the average.
October	183	E.N.E. 7.2	S.E. 9.5	E.N.E. 5.6	1.9	3.7	0.2	3.6	5.5	1.1	Cloudy, 6; overcast, 10; rain, 15; thunderstorm, 2; distant thunder, 14; distant lightning on 15 days; rainfall about half the average.
November	380	N.N.E. 16.0	E. 18.0	N.N.E. 15.5	2.8	3.4	1.3	2.2	2.8	1.4	Clear, 3; cloudy, 12; overcast, 9; rain, 6; distant thunder and lightning, 2; distant lightning on 5 days; Bar. dep. 6th-8th; great damage done by seas; rainfall above the average.
December	232	N.E. 10.0	N.N.E. 12.0	N.E. 10.0	1.3	2.6	0.8	2.5	2.7	1.7	Clear, 7; cloudy, 14; overcast, 7; rain, 3; distant thunder, 2; distant lightning on 2 days; rainfall the average.
Means	225	N.E. 8.4	E.S.E. 11.9	E.N.E. 8.4	1.3	2.5	0.9	3.8	4.1	1.3	Rainfall for the year nearly the average, with 127 rainy days.



No. 674.



JAMAICA

# WEATHER REPORT.

FOR THE MONTH OF

FEBRUARY, 1933.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32°, gravity at Lat. 45° and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small four-cup instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds cumulus and the Upper clouds, cirrus and cirro-stratus.

The rainfall is measured at 7 a.m., and entered as having fallen on the previous day.

The 75th Meridian Time West of Greenwich adopted from 1st February, 1912.

## METEOROLOGICAL RESULTS.

STATIONS.	Elevation.	Bar. Pressure.		Temperature.				Extreme Temperature.					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Date.	Min.	Date.	Range.
	ft	ins.	ins.	°	°	°	°	°	°	°	°	°	°
Morant Point Light House	8	30.039	30.006	77.2	80.9	82.0	75.0	7.0	84.4	4	63.8	27	20.6
Kingston	24	30.010	29.950	68.5	84.7	86.2	67.4	18.8	89.5	21	65.1	9	24.4
Negril Point Light House	33	30.023	29.976	70.2	82.6	85.1	67.9	17.2	89.9	21	62.9	23	27.0
Castleton Gardens	496			64.0	79.6	83.1	63.0	20.1	86.0	2*	57.0	28	29.0
Hope Gardens†	668	30.047	29.963	66.2	83.8	85.8	64.8	21.0	88.0	9*	62.0	17*	26.0
Boon Hall	970												
Hill Gardens	4,900	25.279	25.252	60.5	65.2	69.4	53.3	16.1	73.0	8	52.0	8*	21.0

STATIONS.	Elevation.	Dewpoint and Humidity.					Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.			3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		ft.	°	%	°	%			ins.	Mls.		m.		m.	L.	M.	U.	L.
Morant Point Light House	8	70	79	71	72	1.32	297	NE	13.0	ENE	11.0	2.5	2.0	0.3	0.7	2.9	0.3	
Kingston	24	62	81	69	59	0.00	181	N	3.9	SE	15.4	0.7	0.6	1.4	1.7	3.4	0.9	
Negril Point Light House	33	66	88	73	70	0.16	207	NE	8.1	Var.	11.4	1.5	0.4	0.9	2.0	3.9	0.5	
Castleton Gardens	496	62	94	74	81	2.03	..	..	..	..	..	..	..	..	..	..	..	
Hope Gardens	668	60	82	67	57	0.09	..	..	..	..	..	..	..	..	..	..	..	
Boon Hall	970	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Hill Gardens	4,900	54	82	58	79	0.29	..	..	..	..	..	..	..	..	..	..	..	

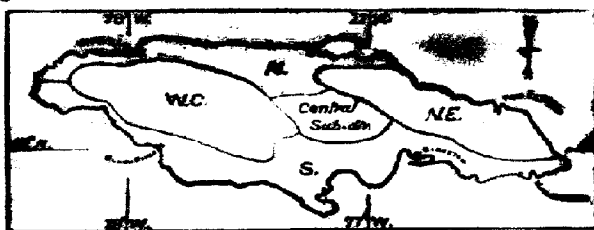
\*And on other days. †Hope Gardens Bar. read at 9 a.m. and 3 p.m.

## THE RAINFALL.

The first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1919." In obtaining the mean Rainfall for the month only those stations are considered for which the average Rainfall has been also given in the last column so that the results derived from these two columns are comparable for each Division. These results are given in the comparative table at the end of this Rainfall Return so as to arrive at the mean for the whole Island, embracing the four Divisions.

The Northern Division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-divisions; the Southern Division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central Divisions are the remaining parts of the Island bounded by the sea and the other Divisions.

A Map showing these Rainfall Divisions is published in Mr. Maxwell Hall's "Rainfall of Jamaica," following page 27, 1911 Edition, and of page 20 of 1923 Edition, an outline of which is given below.



February, 1933.

STATIONS.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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STATIONS.	February, 1933.					STATIONS.	February, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
NORTHERN DIVISION, contd.						WEST-CENTRAL DIVISION, contd.					
Grange	Ins.	Ins.			Ins.	Mandeville	Ins.	Ins.			Ins.
Adelphi	0.03	0.03	24	1	..	Ulster Spring	0.80	0.73	26	3	2.68
Success	0.13	0.13	..	1	2.23	Marshall's Pen	0.20	0.15	26	2	3.43
Rose Hall	0.15	0.15	..	1	2.36	Greenvale	0.91	0.91	26	1	2.82
Cinnamon Hill	0.12	0.12	..	1	2.54	Albert Town	0.57	0.34	26	3	..
Tryall	0.10	0.10	..	1	1.53	Craig Head	0.28	0.24	24	2	3.06
Running Gut	0.12	0.12	..	1	2.17	Warsop	1.54	1.54	5	1	..
Spring Estate	0.10	0.10	..	1	2.41	Troy	0.24	0.17	5	2	..
Friendship	0.09	0.05	5	2	2.27	Wallingford	0.62	0.62	5	1	3.09
Retirement	0.24	0.16	26	3	1.99	Balacava	1.03	1.00	5	2	3.43
Rose Mount	0.09	0.07	15	2	..	Wakefield	0.45	0.45	5	1	2.50
Montego Bay	0.08	0.06	15	2	1.83	Maggotty	0.00	..	..	0	..
Anchovy	0.00	..	..	0	1.41	Lacovia	1.77	1.20	5	2	3.45
Bamboo-Hanover	0.19	0.11	6	2	..	Ipswich	0.74	0.74	6	1	..
Blue Hole	0.77	0.73	5	2	3.79	Kempshot	0.62	0.45	5	3	..
Kew	0.05	0.05	23	1	2.11	Garlands	0.63	0.02	16	2	2.71
Lucea	0.16	0.10	23	3	3.36	Moebo, St. James	0.30	0.14	27	3	..
Haughton Court	0.00	..	..	0	2.13	Bandon Pen	0.23	0.10	26	2	..
Cousins Cove	..	..	..	..	..	Catadupa	0.00	..	..	0	..
Green Island	0.20	0.11	25	3	2.12	Cambridge, St. Jas.	0.26	0.14	26	4	3.11
Haughton Hall	0.13	0.05	23	5	..	New Market	0.53	0.37	17	2	3.23
CENTRAL SUB-DIVISION.						Kew Park	0.90	0.40	25	4	4.05
Knollis	0.00	..	..	0	..	Kew Park	..	..	..	..	2.84
Highgate	0.15	0.15	24	1	..	Montpelier	..	..	..	..	1.95
Rio Magno	0.72	0.19	16	6	..	The Bog	1.12	0.38	25	6	4.05
Riversdale	0.27	0.10	6	3	..	Bethel Town Dist.	0.21	0.08	5	3	4.02
Headworks, R.C.C.	0.10	0.10	5	1	1.64	Burnt Ground	0.06	0.06	17	1	2.67
Bog Walk	0.00	..	..	0	..	Haughton Grove	0.00	..	..	0	2.92
Linstead	0.12	0.08	23	3	2.17	Darliston	0.61	0.27	5	5	3.62
Ewarton	0.23	0.10	16	3	..	Bluefields	1.61	0.83	25	4	3.73
Cave Valley	0.05	0.05	16	1	2.14	Whithorn	0.00	..	..	0	3.03
Guanaboa Vale	0.50	0.50	5	1	..	Water Works Pen	0.88	0.72	5	2	3.20
Point Hill	0.09	0.09	15	1	3.37	Askenish	0.10	0.10	17	1	3.06
Brown's Hall	0.15	0.15	25	1	2.18	Grange Hill	0.69	0.30	5	4	2.75
Bellas Gate	0.07	0.04	27	2	1.67	King's Vale	0.23	0.13	11	2	2.62
Rock River	0.00	0.00	..	0	..	SOUTHERN DIVISION (S.)					
Crofts Hill	0.00	..	..	0	1.47	Morant Point L.H.	1.32	0.77	21	11	2.73
Far Enough	0.14	0.10	24	3	..	Golden Grove	1.29	0.56	15	6	..
Suttons	0.00	..	..	0	..	Pleasant Hill	1.51	0.38	21	9	2.53
Colonel's Ridge	0.00	..	..	0	..	East Prospect	1.17	0.32	21	8	2.52
Chapelton	0.00	..	..	0	1.58	Morant Bay	0.67	0.25	14	5	1.95
Crooked River	0.03	0.03	16	1	..	Aeolus Valley	..	..	..	..	..
James Hill	0.07	0.05	25	2	..	Yallahs	..	..	..	..	..
Frankfield	0.00	..	..	0	2.29	Easington	0.10	0.10	14	1	1.36
WEST-CENTRAL DIVISION (W.C.)						Mavis Bank	0.05	0.03	15	2	..
Moebo, Clarendon	0.00	..	..	0	1.66	Bull Bay	0.00	..	..	0	0.42
Clarendon Park	0.28	0.12	27	3	..	Dallas Castle	0.00	..	..	0	..
Porus	0.00	..	..	0	..	Gordon Town	0.02	0.02	24	1	1.77
Borobridge	0.00	..	..	0	..	Irish Town	0.00	..	..	0	1.65
Spaldings	0.58	0.50	26	4	2.83	Hope Gardens	0.09	0.04	5	3	1.26
Williamsfield	0.21	0.11	16	2	..	Waileka	0.00	..	..	0	..
Brokenhurst	0.22	0.11	15	2	2.47	Ivor	..	..	..	..	..
Shooters Hill	0.30	0.30	27	1	2.18	Barbican	0.00	..	..	0	..
Lowe River	0.09	..	..	0	3.61	Plumb Point L.H.	0.02	0.02	14	1	0.65
Christiana	0.22	0.12	26	4	2.62	King's House Gar.	0.00	..	..	0	1.22
Clifton Hill	0.35	0.25	25	2	2.68	Upper Kingston	0.03	0.03	5	1	0.89
Kendal, Manchester	0.45	0.45	26	1	2.49	Kingston P.W.O.	0.01	..	..	0	0.61
Mereworth	0.56	0.27	26	4	..	Halfway Tree	0.00	..	..	0	0.85
						Clifton Pen	0.00	..	..	0	0.64
						Red Hills	0.00	..	..	0	..

STATIONS.	February, 1933.					STATIONS.	February, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount	Date.		
<b>SOUTHERN DIVISION, contd.</b>	Ins.	Ins.			Ins.	<b>SOUTHERN DIVISION, contd.</b>	Ins.	Ins.			Ins.
Quarantine Station ..	0.00	..	..	0	0.44	Great Valley, Man. ..	0.65	0.49	25	5	2.40
Hematine ..	0.00	..	..	0	1.43	Alligator Pond ..	1.07	0.62	26	3	1.33
Spanish Town ..	0.00	..	..	0	1.33	Fairfield ..	0.35	0.28	26	5	2.45
The Stewartry ..	0.15	0.11	16	2	..	Lititz ..	0.07	0.07	26	1	2.01
Hog Hole, St. Cath. ..	0.11	0.11	16	1	1.72	Myersville ..	0.57	0.57	5	1	..
Hartlands ..	..	..	..	..	1.32	Gilnock ..	..	..	..	..	..
Old Harbour ..	0.80	0.50	25	2	1.77	Southfield, St. Eliz. ..	0.20	0.14	16	3	2.59
May Pen ..	0.45	0.32	25	4	1.77	Munro ..	0.27	0.11	5	4	..
Glen Muir ..	0.00	..	..	0	..	Windsor, St. Eliz. ..	1.00	0.67	5	3	..
Cottage ..	0.07	0.04	20	2	..	Torrington ..	0.40	0.30	5	2	2.45
Belle Plain ..	0.00	..	..	0	..	Unity ..	..	..	..	..	..
Milk River ..	0.00	..	..	0	1.20	Santa Cruz ..	1.65	1.34	5	3	2.47
Retrieve ..	0.06	0.06	16	1	1.76	Pedro Plains ..	0.00	..	..	0	1.38
Hog Hole, S. Man. ..	0.00	..	..	0	3.02	Mountainside ..	0.00	..	..	0	2.27
Stone's Hope ..	0.00	..	..	0	2.15	Fort Charles ..	0.23	0.23	7	1	..
Newport, Man. ..	0.23	0.17	15	4	2.55	Black River ..	0.66	0.53	5	2	1.70
						Font Hill ..	0.95	0.75	5	2	1.84
						Mount Edgecombe ..	0.51	0.15	5	5	2.47
						Sweet River ..	0.38	0.13	15	4	2.62
						Sav.-la-Mar ..	0.32	0.15	13	3	2.08
						Little London ..	0.38	0.18	15	5	3.12
						Retreat ..	0.62	0.52	5	2	2.71
						Negril Point L.H. ..	0.16	0.08	15	3	1.86

## NOTES.

## SHOCKS OF EARTHQUAKE IN FEBRUARY, 1933.

COMPARATIVE TABLE OF RAINFALL AND RAINY DAYS.					Date.	Standard Time (Approx.)	Intensity.	Notes: where, etc.
DIVISIONAL  AND  ISLAND RAINFALL.	February.				9th	5.09 p.m.	I	Mandeville (Prof. Pickering) Greenvale (Manchester) Spaldings.
	Rainfall.		Rainy Days.					
	1932.	Ave.	1932.	Ave.				
	Ins.	Ins.						
North-Eastern ..	0.85	5.48	5	10				
Northern ..	0.25	2.48	2	6				
West-Central ..	0.50	2.84	2	7				
Southern ..	0.32	1.70	2	6				
The Island means ..	0.48	3.13	3	7				

N.B. IT IS PARTICULARLY REQUESTED TO SEND ALL RAINFALL POSTCARDS IN NOT LATER THAN THE 6TH OF EACH MONTH.

## THE ISLAND—FEBRUARY.

The mean rainfall for the month was very deficient in all Divisions and is the lowest recorded for any month for 64 years.

The greatest total fall for the month was 3.62 inches at Orange Vale in the North-Eastern Division and the heaviest fall in 24 hours was 1.54 inch at Craighead in the West-Central Division on the 5th.

The mean number of rainy days was 3, the average being 7. The greatest number was 15 at Shrewsbury in the North-Eastern Division.

No rain fell at 48 stations and 6 other stations had less than 0.05 inch.

The mean rainfall in each parish is given below:—

Inches.			Inches.		
Kingston	..	0.02	St. James	..	0.15
St. Andrew	..	0.06	Hanover	..	0.17
St. Thomas	..	0.91	Westmoreland	..	0.55
Portland	..	1.77	St. Elizabeth	..	0.64
St. Mary	..	0.90	Manchester	..	0.39
St. Ann	..	0.51	Clarendon	..	0.17
Trelawny	..	0.16	St. Catherine	..	0.28

## CITY OF KINGSTON.

There was no rainfall in the month of February, and such is of rare occurrence. During the past 63 years a similar dry weather existed in February, 1897 and in 1901. The 59-year normal is 0.61 inch, with 4.0 rainy days. The upper boundary of Kingston, however, gauged 0.03 inch, with one rainy day. There was distant rain to northward on 27th and on other days.

Mean barometric pressure, 29.994 inches; the 33-year normal being 29.981 inches, shewing 0.013 inch above the normal. The highest barometer reading was 30.080 inches on 15th at 7 a.m., and the lowest 29.858 inches on 27th at 7 a.m. (correc. for diur. var.)

The mean daily temperature, based upon four observations per day, was 76.2 degrees and the 33-year normal 75.7 degrees, or 0.5 degrees above the normal. The maximum temperature was below 90 degrees throughout, and the minimum temperature was above 70 degrees twice. Highest maximum temperature 89.5 degrees on 21st and lowest minimum temperature 65.1 degrees on 9th. Then, the lowest maximum was 82.6 degrees on 24th and the highest minimum 71.9 degrees on 5th. The greatest range of temperature was 22.8 degrees on 23rd and the least range 13.5 degrees on 5th.

The mean daily miles of wind registered was 181, and the 20-year normal 173, shewing about 5% above the normal. The greatest number of miles of wind in one day was 342 on 18th, and the least, 98 on 24th. South-easterly wind continued until after 7 p.m. on 25th to 28th.

The mean relative humidity was 74%, and the 33-year normal 78%. The mean 7 a.m. was 81%, and the mean 3 p.m. 59%. Lowest 7 a.m. 72% on 18th and 20th, and the lowest 3 p.m. 43% on 22nd.

The sky was overcast in the forenoon on 7 occasions, and in the afternoon on 15 occasions.

Total evaporation for February, 5.05 inches, and the 10-year normal gives 4.90 inches.

Mean daily number of sunshine hours 9.6.

## CAYMAN ISLANDS.

Government House, Georgetown, Grand Cayman.—Total rainfall for February, 1933, 0.33 inch. Greatest fall in 24 hours 0.24 inch on 11th, with 3 rainy days.

## MORANT POINT LIGHT HOUSE.

A table shewing the Meteorological Results for the station at Morant Point Lighthouse (situated at the extreme East of the Island) for the year 1932 is appended. The extreme maximum temperature was 89.6 degrees on August 28th and September 6th and the extreme minimum temperature 59.0 degrees on February 29th. The greatest monthly rainfall was 18.65 inches in April, and the least 1.50 inch in February. The year's rainfall total was 68.52 inches and the normal 66.67 inches (60-year). There were 176 rainy days. The observations were conducted by Mr. Chas. Durrant, the Superintendent of the Lighthouse.

J. F. BRENNAN,  
Government Meteorologist.

Kingston, March 21st, 1933.

CORRIGENDUM.—Weather Report No. 672 for December 1932 Table A. Total Rainfall for the Island 1932—For 75.97 read 75.98.

MORANT POINT, JAMAICA.—METEOROLOGICAL RESULTS FOR THE YEAR 1932.

(FOR ELEVATIONS: See Foot Note.)

Month.	Barometer Pressure.		TEMPERATURE. (FAH.).					Extremes for Month.			Dewpoint and Humidity.			Rain-fall.	Rainy Days.
	7 a.m.	3 p.m.	Mean.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Min.	Range.	7 a.m.	3 p.m.		
January	Ins. 30.011	Ins. 29.983	78.2	78.0	80.4	81.3	75.2	6.1	83.5	70.8	12.7	71	70	Ins. 2.87	No. 13
February	.012	.976	77.4	76.5	80.6	81.6	73.0	8.6	83.8	59.0	24.8	70	71	1.50	10
March	*29.971	.940	77.4	75.3	81.7	83.0	71.5	11.5	85.5	61.0	24.5	70	83	1.65	7
April	.926	.865	78.3	78.0	80.9	82.8	73.8	9.0	85.8	67.9	17.9	73	74	18.65	18
May	.933	.902	80.1	79.6	82.5	84.1	76.2	7.9	86.5	71.4	15.1	75	84	9.33	23
June	.944	.913	81.5	81.7	83.7	85.6	77.2	8.4	87.5	71.2	16.3	76	84	6.01	20
July	.970	.950	83.0	82.8	85.5	86.9	78.8	8.1	88.3	72.0	16.3	77	82	1.72	14
August	.926	.901	82.7	82.5	85.3	87.4	77.7	9.7	89.6	72.1	17.5	76	81	5.19	16
September	.898	.861	82.6	82.0	85.5	87.4	77.4	10.0	89.6	71.3	18.3	76	81	6.14	14
October	.889	.850	81.0	80.4	84.1	85.9	75.7	10.2	89.3	71.2	18.1	75	83	9.65	17
November	.877	.841	79.9	79.8	82.1	83.7	76.2	7.5	86.6	69.9	16.7	74	80	3.92	15
December	29.980	29.947	79.1	79.0	81.0	82.2	76.3	5.9	84.7	71.0	13.7	72	80	1.89	9
Means	29.945	29.911	80.1	79.6	82.8	84.3	75.7	8.6	86.7	69.1	17.6	74	82		
Totals	..	..	..	..	..	..	..	..	..	..	..	..	..	68.52	176

Barometer pressure reduced to Standard of Kew, 32 degrees, gravity at Lat, 45° and Mean Sea Level. The 75th Meridian West of Greenwich Standard Time used. Altitude of Barometer above Mean Sea Level 8 ft. Height of Thermometers above ground 4 ft. 6 in. Height of Rain Gauge above the ground 3 ft. Height of Anemometer above the ground 18 ft.

MORANT POINT, 1932—MEAN RESULTS, contd.

7

Month.	Wind Miles per diem.	Wind from and Miles per hour.		Clouds: in tenths.						Weather Conditions.
		7 a.m.	3 p.m.	Lower.		Middle.		Upper.		
				7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	
January	352	N.E. 18.0	E.N.E. 17.0	2.3	0.5	2.0	2.1	0.6	1.1	Rain 13 days; overcast 1 day N.E. gale 14th, 15th and 16th.
February	267	N.E. 13.0	N.E. 12.0	1.3	0.5	2.8	3.2	0.2	0.2	Rain 10 days; overcast 3 days; clear blue sky, 5 days; N.E. gale 1st and 2nd.
March	233	Var. 11.0	E.N.E. 11.0	2.3	0.6	1.8	2.3	0.7	0.3	Rain, 7 days; overcast, 4 days; clear blue sky, 5 days; N.E. gale 30th.
April	253	N.E. 12.5	N.E. 11.0	3.4	2.3	2.2	3.1	1.4	1.7	Rain, 18 days; overcast, 10 days; thunderstorm, 2 days; flood rains 24th.
May	291	N.E. 13.0	N.E. 11.0	1.7	1.6	3.0	2.4	1.5	2.2	Rain, 23 days; overcast, 7 days; clear blue sky, 1 day; N.W. gale 15th.
June	326	E.N.E. 15.0	E. 14.5	1.9	1.5	2.0	2.5	3.1	3.1	Rain, 20 days; overcast, 8 days; thunderstorm 1st, 2nd, 9th, 17th and 24th.
July	290	E.N.E. 12.0	E.N.E. 11.0	0.8	0.3	2.2	2.1	1.5	2.3	Rain, 14 days; thunderstorm 9th, 20th, 21st and 22nd.
August	214	E.N.E. 9.5	E.N.E. 9.0	0.9	0.9	3.0	2.4	1.8	2.2	Rain, 16 days; overcast, 3 days; thunderstorm 8th, 9th, 10th, 20th, 21st and 29th.
September	199	N.E. 10.0	N.E. 8.0	1.0	0.4	2.6	3.2	1.6	2.0	Rain, 14 days; overcast, 5 days; thunderstorm 11th, 18th, 19th, 20th, 21st and 22nd.
October	206	N.E. 9.5	E.N.E. 8.5	1.4	1.1	2.6	3.0	2.4	2.0	Rain, 17 days; overcast, 5 days; thunderstorm 7th and 29th.
November	371	N.N.E. 18.0	N.N.E. 17.0	1.8	2.4	2.4	2.5	2.2	1.7	Rain, 15 days; overcast, 9 days; N.E. gale shifting to East, 4th, 5th, 6th and 7th; South gale shifting to S.W. 9th.
December	366	N.E. 15.0	N.E. 15.0	2.3	1.0	2.6	2.4	0.6	0.7	Rain, 9 days; overcast, 5 days; heavy E. swell; N.E. wind.
Means	281	N.E. 13.1	E.N.E. 12.0	1.8	1.1	2.4	2.6	1.5	1.6	Rain, 176 days; overcast, 60 days; Clear blue sky, 11 days; thunderstorm, 25 days.

No. 675.



# JAMAICA WEATHER REPORT.

FOR THE MONTH OF

MARCH, 1933.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32°, gravity at Lat. 45° and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small four-cup instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds cumulus and the Upper clouds, cirrus and cirro-stratus.

The rainfall is measured at 7 a.m., and entered as having fallen on the previous day.

The 75th Meridian Time West of Greenwich adopted from 1st February, 1912.

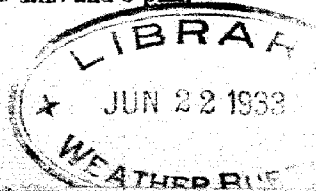
## METEOROLOGICAL RESULTS.

STATIONS.	Elevation.	Bar. Pressure.		Temperature.				Extreme Temperature.					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Date.	Min.	Date.	Range.
	ft.	ins.	ins.	°	°	°	°	°	°				°
Morant Point Light House	8	29.994	29.968	77.0	80.9	82.1	74.5	7.6	83.7	21	61.8	2	21.9
Kingston	24	29.967	29.914	71.4	84.1	86.1	69.1	17.0	91.2	11	65.6	19	25.6
Negril Point Light House	33	29.984	29.934	71.5	81.6	84.6	68.9	15.7	88.4	4	65.4	27	23.0
Castleton Gardens	496			65.9	79.8	83.9	64.9	19.0	88.0	24	60.0	2*	28.0
Hope Gardens†	668	30.014	29.928	68.5	84.1	85.6	65.7	19.9	90.0	9	62.0	27	28.0
Boon Hall	970												
Hill Gardens	4,900	25.247	25.227	61.6	64.0	67.0	51.8	12.2	69.0	24*	52.0	1	17.0

STATIONS.	Elevation.	Dewpoint and Humidity.					Rainfall.	Wind per diem.	Wind, direction from and miles per hour.				Amount of Cloud, Lower, Middle and Upper.					
		7 a.m.		3 p.m.					7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°	%	°	%	ins.	Mls.		m.		m.	L.	M.	U.	L.	M.	U.	
Morant Point																		
Light House	8	70	80	72	74	1.23	309	ENE	15.0	ENE	12.0	2.4	2.0	0.8	0.6	3.3	0.6	
Kingston	24	65	80	69	62	0.82	196	N	6.2	SE	14.2	2.7	1.0	0.5	2.9	1.9	6.2	
Negril Point																		
Light House	33	70	92	74	77	8.56	232	ENE	9.0	Var.	16.0	1.0	0.8	1.7	3.7	3.0	0.4	
Castleton																		
Gardens	496	64	95	74	81	13.80	..	..	..	..	..	..	..	..	..	..	..	
Hope Gardens	668	63	83	68	59	1.63	..	..	..	..	..	..	..	..	..	..	..	
Boon Hall	970	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Hill Gardens	4,900	59	87	61	88	6.33	..	..	..	..	..	..	..	..	..	..	..	

\*And on other days.

†Hope Gardens Bar. read at 9 a.m. and 3 p.m.



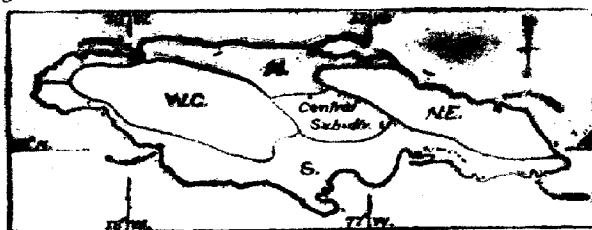


## THE RAINFALL.

The first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1919." In obtaining the mean Rainfall for the month only those stations are considered for which the average Rainfall has been also given in the last column so that the results derived from these two columns are comparable for each Division. These results are given in the comparative table at the end of this Rainfall Return so as to arrive at the mean for the whole Island, embracing the four Divisions.

The Northern Division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-division; the Southern Division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central Divisions are the remaining parts of the Island bounded by the sea and the other Divisions.

A Map showing these Rainfall Divisions is published in Mr. Maxwell Hall's "Rainfall of Jamaica," following page 27, 1911 Edition, and of page 20 of 1923 Edition, an outline of which is given below.



March, 1933.

STATIONS.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
NORTH-EASTERN DIVISION. (N.E.)					
Manchioneal	3.39	0.66	15	14	3.68
Priestman's River	2.40	1.10	14	9	4.28
Bath	4.24	0.80	30	19	4.29
Barrett's Gap	16.58	5.75	3	26	
Millbank	28.32	7.37	3	19	
Moore Town	23.71	3.00	14	17	9.97
Port Antonio	4.43	0.72	15	16	4.74
Passley Garden	5.20	1.50	16	13	
Fellowship	7.90	1.23	15	15	7.25
Johnson River Br.	4.10	1.02	15	12	2.76
Trinity Ville	3.98	1.35	30	7	
Shrewsbury	23.07	8.63	4	16	8.13
Hope Bay	5.16	0.96	31	21	
Cedar Valley	3.69	1.22	20	11	3.00
Moy Hall	4.39	1.56	20	16	3.00
Paradise	19.50	6.79	4	13	
Lennox	5.85	1.81	31	14	
Greenvale	25.55	7.34	3	11	10.12
Spring Garden	3.82	1.00	31	15	5.81
Hill Gardens	6.33	4.00	30	7	4.55
Buff Bay	4.49	1.14	31	15	5.35
Orange Vale	27.71	9.00	3	16	
Belvedere, Portland	11.48	4.75	3	6	6.53
Windsor Castle, do.	4.43	1.25	31	10	5.49
Balcarras	13.00	3.13	31	4	
Mt. Holstein	19.21	10.02	30	15	7.00
Cedar Hurst	7.98	3.45	30	16	
Hardware Gap	6.66	1.45	30	14	4.07
Rose Hill	4.53	1.44	30	7	4.53
Hermitage	2.78	1.25	31	14	
Mount James	9.21	5.75	30	10	
Stony Hill Ind. Sch.	2.93	0.97	30	11	2.97
Boon Hall	3.30	1.52	30	10	
Brandon Hill	6.69	4.00	30	8	
NORTHERN DIVISION (N.).					
Port Maria	5.26	1.35	16	13	3.06
Wentworth	2.97	1.08	16	14	
Eden Park					
Oracabessa	3.62	0.80	3	7	
Huddersfield	4.22	1.36	31	5	
Ocho Rios	3.42	1.38	3	8	2.50
Bogue, Ocho Rios	4.31	2.17	3	8	3.18
Drax Hall	4.93	2.32	3	8	3.14
Rockfield	3.67	1.22	31	7	3.41
Liberty Hill	3.36	0.68	31	10	3.67
St. Ann's Bay	4.49	1.84	3	8	2.94
Seville	4.94	1.90	3	8	3.10
Richmond Estate	2.59	0.83	31	8	2.71
Llandovery	4.35	1.15	3	9	2.93
Runaway Bay	2.43	1.15	31	5	1.45
Knapdale	4.95	1.44	17	11	
Alexandria	3.44	1.20	30	8	1.91
Bel-Air	4.80	1.60	31	9	
Brown's Town	4.41	1.78	30	11	3.05
Watt Town, St. Ann.	1.74	0.70	30	5	2.28
Home Castle	2.70	1.00	30	5	2.64
Richmond Pen	1.40	0.50	31	8	2.36
Arcadia	1.39	0.46	4	11	2.05
Vale Royal	1.10	0.52	4	6	2.32
Harmony Hall	2.35	1.15	30	5	2.04
Duncans	2.97	1.28	5	5	
Clark's Town					
Falmouth	3.11	1.75	3	5	1.71
The Hague	1.67	0.75	31	6	
Wales	0.50	0.50	31	1	
Canaan	4.32	1.88	3	10	2.41

STATIONS.	March, 1933.					STATIONS.	March, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
NORTHERN DIVISION, contd.						WEST-CENTRAL DIVISION, contd.					
Grange ..	2.65	1.60	2	3	..	Mandeville ..	1.45	0.50	20	12	4.18
Adelphi ..	2.00	1.00	3	6	..	Ulster Spring ..	2.11	0.95	17	6	4.09
Success ..	2.61	1.16	1	4	1.74	Marshall's Pen ..	2.77	1.13	24	5	3.94
Rose Hall ..	2.93	1.90	1	4	1.64	Greenvale ..	1.50	0.55	17	9	..
Cinnamon Hill ..	2.50	1.30	1	4	1.69	Albert Town ..	1.86	0.65	30	5	4.05
Tryall ..	1.85	0.75	1	3	1.60	Craig Head ..	1.16	0.37	30	6	..
Running Gut ..	2.58	1.25	1	4	1.55	Warsop ..	1.14	0.48	30	5	..
Spring Estate ..	1.80	1.05	1	3	1.52	Troy ..	1.49	0.50	16	6	5.88
Friendship ..	2.22	1.31	3	8	2.43	Wallingford ..	1.09	0.30	13	11	4.70
Retirement ..	2.52	1.46	3	8	3.02	Balaclava ..	0.70	0.18	18	4	4.57
Rose Mount ..	1.61	0.48	1	8	..	Wakefield ..	3.16	1.85	3	7	..
Montego Bay ..	1.18	0.39	30	7	1.65	Maggotty ..	6.53	1.42	16	13	5.93
Anchovy ..	1.89	0.78	26	9	2.13	Lacovia ..	3.86	0.96	17	7	..
Bamboo-Hanover ..	1.34	0.29	1	8	..	Ipswich ..	8.99	2.65	18	11	..
Blue Hole ..	1.85	0.49	18	7	3.01	Kempshot ..	2.31	1.54	3	9	3.11
Kew ..	2.95	0.75	19	9	2.96	Garlands ..	3.48	1.11	18	9	..
Lucca ..	2.43	0.96	14	7	2.37	Mocho, St. James ..	5.27	1.35	18	9	..
Haughton Court ..	1.63	0.45	14	7	2.22	Bandon Pen ..	1.89	0.51	17	7	..
Cousins Cove ..	4.99	2.02	15	7	..	Catadupa ..	3.40	1.49	18	8	4.11
Green Island ..	5.84	2.23	15	9	3.29	Cambridge, St. Jas. ..	4.72	2.10	18	9	4.77
Haughton Hall ..	..	..	..	..	..	New Market ..	7.39	2.27	31	11	5.53
CENTRAL SUB-DIVISION.						Kew Park ..	5.98	2.39	18	9	4.42
Knollis ..	3.10	0.80	2	10	..	Montpelier ..	3.20	1.50	15	4	2.55
Highgate ..	2.90	0.73	18	14	..	The Bog ..	6.97	1.87	31	12	6.34
Rio Magno ..	6.80	1.79	4	12	..	Bethel Town Dist. ..	6.35	2.10	18	13	4.69
Riversdale ..	5.35	1.95	30	13	..	Burnt Ground ..	1.80	0.77	18	4	4.53
Headworks, R.C.C. ..	1.60	0.69	19	5	2.90	Haughton Grove ..	3.74	1.54	17	8	6.98
Bog Walk ..	2.90	0.67	2	10	..	Darliston ..	6.09	1.17	17	11	6.13
Linstead ..	4.73	1.19	30	16	3.08	Bluefields ..	5.57	1.38	31	12	6.93
Ewarton ..	4.63	1.30	4	11	..	Whithorn ..	6.92	2.80	31	8	4.83
Cave Valley ..	3.47	1.53	20	10	2.70	Water Works Pen ..	6.01	1.16	1	11	5.22
Guanaboa Vale ..	3.73	1.08	17	9	..	Askenish ..	4.55	1.30	14	5	4.08
Point Hill ..	6.18	1.74	9	15	4.66	Grange Hill ..	7.48	1.90	18	13	5.22
Brown's Hall ..	4.58	0.70	2	10	4.35	King's Vale ..	2.71	1.83	17	7	4.24
Bollas Gate ..	1.27	0.48	20	4	2.50	SOUTHERN DIVISION (S.)					
Rock River ..	1.30	0.95	28	3	..	Morant Point L.H. ..	1.23	0.39	14	14	2.26
Crofts Hill ..	3.60	0.75	4	9	2.80	Golden Grove ..	1.41	0.51	14	13	..
Far Enough ..	3.80	0.61	4	12	..	Pleasant Hill ..	2.31	0.71	14	14	3.39
Suttons ..	1.96	0.71	26	9	..	East Prospect ..	2.63	0.65	22	15	2.96
Colonel's Ridge ..	2.86	0.78	31	8	..	Morant Bay ..	2.25	0.54	13	13	1.96
Chapelton ..	3.34	1.08	20	9	2.60	Aeolus Valley ..	1.77	0.30	15	8	..
Crooked River ..	3.03	1.05	20	9	..	Yallahs ..	0.70	0.30	30	4	..
James Hill ..	3.72	1.60	20	10	..	Eastington ..	1.64	0.54	15	10	1.39
Frankfield ..	4.08	1.23	20	10	2.14	Mavis Bank ..	2.82	1.25	30	11	..
WEST-CENTRAL DIVISION (W.C.)						Bull Bay ..	0.00	..	..	0	0.41
Mocho, Clarendon ..	2.32	0.23	31	10	3.22	Dallas Castle ..	1.37	0.54	30	7	..
Clarendon Park ..	2.33	0.92	31	8	..	Gordon Town ..	2.41	1.38	30	10	1.70
Porus ..	2.14	0.80	20	9	..	Irish Town ..	2.42	1.37	30	9	1.98
Borobridge ..	2.89	0.85	17	12	..	Hope Gardens ..	1.63	0.73	30	10	2.01
Spaldings ..	1.91	0.73	20	5	2.66	Waieka ..	1.10	0.60	31	2	..
Williamsfield ..	1.83	0.74	20	12	..	Ivor ..	..	..	..	..	..
Brokenhurst ..	2.53	0.58	20	11	3.05	Barbican ..	1.18	0.59	30	6	..
Shooters Hill ..	2.03	0.68	20	10	3.02	Plumb Point L.H. ..	0.97	0.40	30	5	0.83
Lowe River ..	3.07	0.86	30	8	5.18	King's House Gar. ..	0.69	0.16	30	7	1.54
Christiana ..	1.71	0.61	17	12	4.23	Upper Kingston ..	1.32	0.72	31	6	0.76
Clifton Hill ..	1.10	0.50	20	4	2.52	Kingston P.W.O. ..	0.82	0.43	19	6	0.94
Kendal, Manchester ..	2.55	0.68	20	12	3.28	Halfway Tree ..	0.99	0.48	30	8	1.16
Mereworth ..	2.23	0.63	13	13	..	Clifton Pen ..	1.58	0.60	31	6	1.06
						Red Hills ..	4.48	1.73	12	7	..

STATIONS.	March, 1933.					STATIONS.	March, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
<b>Southern Division, contd.</b>	Ins.	Ins.			Ins.	<b>Southern Division, contd.</b>	Ins.	Ins.			Ins.
Quarantine Station ..	1.52	1.	21	5	0.55	Great Valley, Man. ..	2.40	0.62	20	10	2.43
Hematine ..	3.40	1.9	12	9	1.52	Alligator Pond ..	0.78	0.27	30	6	1.61
Spanish Town ..	3.08	1.40	12	8	1.98	Fairfield ..	2.42	0.62	29	15	3.43
The Stewartry ..	3.71	0.94	13	8	..	Lititz ..	2.46	0.89	29	7	1.93
Hog Hole, St. Cath. ..	2.42	0.73	31	7	2.26	Myersville ..	3.60	1.36	12	7	..
Old Harbour ..	2.55	1.10	12	4	2.40	Southfield, St. Eliz. ..	2.94	1.36	12	9	2.11
May Pen ..	2.81	0.63	13	9	2.53	Munro ..	..	..	..	..	..
Glen Muir ..	2.30	0.60	31	4	..	Windsor, St. Eliz. ..	3.76	1.75	12	13	..
Cottage ..	0.78	0.35	20	7	..	Torrington ..	4.37	1.38	2	8	3.13
Belle Plain ..	3.62	1.06	31	9	..	Santa Cruz ..	3.95	1.37	31	7	4.61
Milk River ..	1.18	0.45	30	4	1.55	Pedro Plains ..	2.08	0.98	12	6	1.63
Retrieve ..	0.57	0.51	20	2	2.10	Mountainside ..	0.50	0.50	30	1	2.32
Hog Hole, S. Man. ..	2.74	0.90	31	7	2.28	Fort Charles ..	2.62	1.85	12	7	..
Stone's Hope ..	1.98	0.49	31	11	2.61	Black River ..	3.79	1.5	10	12	2.60
Newport, Man. ..	2.30	0.63	20	10	2.96	Font Hill ..	4.70	1.25	30	8	3.45
						Mount Edgecombe ..	6.83	1.25	8	12	4.10
						Sweet River ..	5.39	1.65	17	11	3.65
						Sav.-la-Mar ..	6.15	1.93	16	10	2.81
						Little London ..	10.50	3.00	18	14	3.11
						Retreat ..	10.99	2.82	16	12	3.63
						Negril Point L.H. ..	8.56	2.43	17	14	2.77

## NOTES.

## SHOCKS OF EARTHQUAKE IN MARCH, 1933.

COMPARATIVE TABLE OF RAINFALL  
AND RAINY DAYS.

DIVISIONAL AND ISLAND RAINFALL.	March.			
	Rainfall.		Rainy Days.	
	1932	Ave.	1932.	Ave.
	Ins.	Ins.		
North-Eastern ..	7.60	4.61	12	9
Northern ..	3.06	2.37	8	6
West-Central ..	3.63	4.25	9	9
Southern ..	2.91	2.18	8	6
The Island means ..	4.30	3.35	9	8

Date.

Standard  
Time  
(Approx.)

Intensity.

Notes: where, etc.

None Reported.

N.B. IT IS PARTICULARLY REQUESTED TO SEND ALL RAINFALL POSTCARDS IN NOT LATER THAN THE 6TH OF EACH MONTH.

## THE ISLAND—MARCH.

The mean rainfall for the month exceeded the average in all Divisions except the West-Central.

The greatest precipitation appears to have occurred on the 4th, 20th, 30th and 31st.

The greatest total fall for the month was 28.32 inches at Millbank in the North-Eastern Division and the heaviest fall in 24 hours was 10.02 inches at Mount Holstein in the same Division on the 30th.

The mean number of rainy days was 9, the average being 8. The greatest number was 26 at Barrett's Gap in the North Eastern Division.

No rain fell at Bull Bay in the Southern Division.

The mean rainfall in each parish is given below:—

	Inches.		Inches.
Kingston .. ..	1.04	St. James .. ..	2.66
St. Andrew .. ..	3.17	Hanover .. ..	2.93
St. Thomas .. ..	3.78	Westmoreland .. ..	6.90
Portland .. ..	12.33	St. Elizabeth .. ..	3.73
St. Mary .. ..	6.48	Manchester .. ..	1.95
St. Ann .. ..	4.36	Clarendon .. ..	2.58
Trelawny .. ..	1.96	St. Catherine .. ..	4.25

The total rainfall for the first quarter of the year is given below and shews a deficiency of 4.27 inches as compared with the 60 year average.

	1933. Inches.	60 Year average. Inches.
January .. ..	1.43	4.00
February .. ..	0.48	3.13
March .. ..	4.30	3.35
<b>Total .. ..</b>	<b>6.21</b>	<b>10.48</b>

## CITY OF KINGSTON.

The total rainfall for March was 0.82 inch; the 60-year normal being 0.94 inch. The number of rainy days was 6, as against the 49-year average of 4.4. Greatest fall in 24 hours was 0.43 inch, on 19th. The upper boundary of Kingston gauged 1.32 inch, with 6 rainy days. Distant rain to north observed on 7 days, to NE on 3 days, and to eastward on one day.

The mean barometric pressure was 29.950 ins., and the 33-year normal 29.965 ins., shewing 0.015 inch under the normal. Highest barometer reading 30.029 ins. on 23rd at 3 p.m., and lowest 29.846 ins. on 1st at 3 p.m. (correc. for diurn. var.).

Mean monthly temperature, based upon 4 observations per day, was 77.2 degs., or 0.7 deg. above the normal of 76.5 degs. Highest maximum temperature was 91.2 degs. on 11th and lowest minimum 65.6 degs. on 19th. Then, the lowest maximum was 82.8 degs. on 18th and the highest minimum was 75.4 degs. on 21st. The greatest range of temperature was 24.0 degs. on 11th, and the least range 9.1 degs. on 21st.

The mean daily miles of wind registered was 196, as compared with the 20-year normal of 185. The greatest number of miles of wind in one day was 357 on 7th, and the least 105 on 31st. South-easterly wind commenced early on two occasions, and continued until after 7 p.m. on 12 occasions.

Mean relative humidity for the month was 74% as compared with the 33-year normal of 77%, shewing 3% under the normal. The mean 7 a.m. was 80%, and the mean 3 p.m. 62%. Lowest 7 a.m. 66% on 2nd and lowest 3 p.m. 44% on 25th.

The sky was overcast in the early forenoon on 12 occasions, and in the afternoon also on 12 occasions.

Total evaporation for March was 5.59 inches; the 10-year normal being 6.61 ins.

The mean daily number of sunshine hours was 9.8.

## EVAPORATION TABLES.

Attached to this Weather Report No. 675 is a Table (A), giving the results of the daily measurements of evaporation, gauged during each month, of the year 1932, in the city of Kingston. The Evaporimeter continued to be maintained in the same situation as in former years, from 1924 (vide Weather Report No. 570). From an inspection of the 1932 Table it will be seen that the maximum evaporation occurred in the month of July, when a total of 7.85 ins. was gauged, representing for this month a daily mean of 0.253 inch. Then, the minimum monthly evaporation appears in the month of November, when a total of 3.27 ins. was gauged, with a daily mean of 0.109 inch, or less than one-half that of July.

The total evaporation for the year 1932 was 64.36 ins. which is 8.16 ins. below that of the 9-year normal of 72.52 ins. The general monthly mean for the year gives 5.36 ins. and a daily mean of 0.176 inch, or, 0.005 inch below that of 1931. It may be noted that a rain-gauge which is installed nearly alongside the Evaporimeter, registered 29.71 ins., which shows less than one-half of the amount recorded for the twelve months of evaporation.

The greatest evaporation for one day was 0.42 inch on 28th May. The greatest daily evaporation for each month is indicated by bolder-faced type, in the respective columns of the Table.

Another Table (B), shewing the evaporation measured at Negril Point Light House, which was supplied by Mr. J. S. Brownhill, for the year 1932, is appended. From an inspection of the Table it will be seen that the monthly maximum evaporation of 7.70 ins. occurred in March (similar to that of year 1931), giving for the month a daily mean of 0.248 inch. Then the minimum evaporation occurs in October (also similar to that of year 1931) with 5.48 ins., giving a daily mean of 0.177 inch, or, about 71% of the figure for March.

The total evaporation for the year 1932 was 77.22 inches or, 12.86 ins. more than the Kingston Evaporation Table. The general monthly mean for the year was 6.43 ins. and the daily mean was 0.211 inch. It may be stated that the rain-gauge positioned in the vicinity of the Evaporimeter gauged 54.55 ins. for the year.

It will be found that the maximum evaporation for one day for each month, is similarly indicated by bolder-faced type in the respective columns of Table (B). The greatest evaporation for a single day, for the year 1932, amounted to 0.38 inch on 25th, 28th and 29th February.

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#### CAYMAN ISLANDS.

Government House, Georgetown, Grand Cayman.—For the month of March, 1933, the total rainfall was 0.57 inch. The greatest fall in 24 hours was 0.33 in. on 16th with 3 rainy days.

J. F. BRENNAN,  
Government Meteorologist.

Kingston, April 20th, 1933.

TABLE (A)—KINGSTON.—YEAR 1932.

Daily record of evaporation in inches—Evaporimeter 6 inches above ground and 102 ft. above sea level.  
(148½ East Street.)

Date.	Jany.	Feby.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	0.13	0.19	0.16	0.19	0.24	0.13	0.20	0.34	0.32	0.17	0.12	0.10
2	0.11	0.16	0.13	0.13	0.12	0.02	0.17	0.25	0.16	0.10	0.13	0.11
3	0.12	0.19	0.21	0.13	0.23	0.13	0.28	0.38	0.26	0.18	0.06	0.12
4	0.12	0.13	0.16	0.07	0.15	0.18	0.17	0.29	0.06	0.10	0.09	0.19
5	0.16	0.19	0.18	0.12	0.01	0.23	0.32	0.25	0.20	0.16	0.10	0.08
6	0.12	0.12	0.20	0.15	0.15	0.22	0.24	0.22	0.21	0.03	0.13	0.13
7	0.14	0.03	0.15	0.17	0.24	0.24	0.32	0.27	0.19	0.08	0.17	0.08
8	0.14	0.06	0.10	0.22	0.27	0.20	0.21	0.02	0.24	0.08	0.06	0.09
9	0.11	0.10	0.18	0.24	0.38	0.21	0.28	0.24	0.16	0.19	0.07	0.12
10	0.09	0.10	0.14	0.22	0.29	0.29	0.29	0.10	0.16	0.07	0.12	0.13
11	0.12	0.17	0.17	0.29	0.23	0.25	0.37	0.33	0.15	0.09	0.11	0.20
12	0.16	0.16	0.20	0.29	0.35	0.26	0.34	0.30	0.20	0.15	0.02	0.12
13	0.13	0.19	0.12	0.17	0.33	0.30	0.21	0.25	0.16	0.10	0.10	0.11
14	0.13	0.15	0.21	0.18	0.33	0.33	0.21	0.25	0.27	0.08	0.06	0.13
15	0.14	0.19	0.18	0.19	0.30	0.37	0.27	0.17	0.20	0.12	0.12	0.17
16	0.10	0.12	0.15	0.22	0.10	0.28	0.26	0.12	0.24	0.14	0.10	0.11
17	0.06	0.13	0.26	0.20	0.23	0.19	0.33	0.28	0.25	0.18	0.11	0.15
18	0.09	0.18	0.21	0.27	0.20	0.12	0.29	0.29	0.08	0.14	0.10	0.12
19	0.18	0.12	0.19	0.34	0.27	0.18	0.25	0.27	0.15	0.10	0.10	0.05
20	0.06	0.22	0.16	0.22	0.32	0.18	0.23	0.16	0.16	0.10	0.10	0.14
21	0.09	0.20	0.22	0.24	0.20	0.22	0.23	0.10	0.07	0.03	0.26	0.20
22	0.12	0.22	0.27	0.20	0.27	0.20	0.22	0.18	0.10	0.16	0.06	0.16
23	0.10	0.27	0.26	0.20	0.35	0.27	0.25	0.13	0.15	0.02	0.08	0.20
24	0.16	0.12	0.24	0.25	0.34	0.05	0.16	0.02	0.17	0.15	0.13	0.14
25	0.12	0.17	0.13	0.22	0.34	0.10	0.27	0.16	0.12	0.15	0.10	0.18
26	0.17	0.18	0.19	0.07	0.25	0.30	0.23	0.20	0.14	0.02	0.12	0.13
27	0.08	0.17	0.22	0.07	0.26	0.31	0.17	0.12	0.17	0.19	0.21	0.13
28	0.16	0.03	0.31	0.18	0.42	0.23	0.21	0.21	0.13	0.14	0.14	0.16
29	0.12	0.22	0.12	0.20	0.35	0.26	0.25	0.15	0.08	0.03	0.08	0.13
30	0.16	..	0.27	0.20	0.08	0.29	0.27	0.13	0.11	0.12	0.12	0.14
31	0.13	..	0.19	..	0.05	..	0.35	0.13	..	0.14	..	0.13
Total	3.82	4.48	5.88	5.84	7.65	6.54	7.85	6.31	5.03	3.51	3.27	4.15
Means	0.123	0.154	0.190	0.195	0.247	0.218	0.253	0.203	0.169	0.113	0.109	0.134

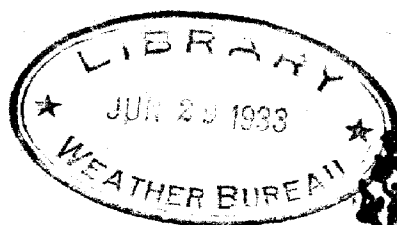
Total Evaporation for year 1932, 64.36 ins.

TABLE (B) NEGRIL POINT—YEAR 1932.  
Daily Record of Evaporation in Inches for the year 1932 at Negril Point—Evaporimeter four inches above ground, and 27 feet above sea level.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1	0.21	0.34	0.31	0.18	0.17	0.11	0.20	0.21	0.26	0.18	0.21	0.36
2	0.20	0.25	0.33	0.10	0.23	0.12	0.21	0.21	0.28	0.16	0.25	0.31
3	0.13	0.21	0.21	0.17	0.21	0.14	0.23	0.18	0.23	0.24	0.26	0.30
4	0.25	0.23	0.36	0.14	0.12	0.28	0.16	0.21	0.20	0.18	0.21	0.24
5	0.20	0.22	0.33	0.20	0.05	0.26	0.19	0.17	0.29	0.23	0.18	0.21
6	0.23	0.13	0.12	0.19	0.24	0.16	0.22	0.11	0.25	0.22	0.05	0.19
7	0.20	0.26	0.31	0.17	0.25	0.22	0.18	0.19	0.31	0.08	0.00	0.19
8	0.15	0.13	0.12	0.26	0.26	0.19	0.22	0.08	0.35	0.05	—*	0.23
9	0.22	0.15	0.25	0.20	0.29	0.25	0.21	0.19	0.28	0.13	—*	0.22
10	0.23	0.15	0.16	0.20	0.29	0.26	0.21	0.13	0.18	0.10	—*	0.21
11	0.19	0.23	0.20	0.23	0.24	0.26	0.19	0.30	0.22	0.12	0.31	0.29
12	0.26	0.16	0.22	0.14	0.27	0.28	0.25	0.23	0.17	0.22	0.33	0.27
13	0.17	0.20	0.17	0.27	0.11	0.26	0.18	0.14	0.21	0.28	0.30	0.26
14	0.22	0.16	0.29	0.20	0.24	0.31	0.19	0.20	0.26	0.19	0.29	0.21
15	0.27	0.25	0.32	0.20	0.18	0.30	0.22	0.16	0.24	0.17	0.34	0.28
16	0.18	0.22	0.33	0.13	0.14	0.18	0.23	0.20	0.31	0.20	0.27	0.18
17	0.12	0.22	0.33	0.21	0.17	0.14	0.19	0.25	0.23	0.18	0.30	0.24
18	0.20	0.24	0.32	0.28	0.27	0.19	0.21	0.20	0.23	0.23	0.25	0.25
19	0.11	0.22	0.21	0.34	0.25	0.14	0.24	0.18	0.18	0.16	0.27	0.19
20	0.08	0.22	0.26	0.21	0.18	0.15	0.20	0.22	0.20	0.17	0.24	0.25
21	0.14	0.28	0.21	0.14	0.26	0.19	0.19	0.25	0.19	0.17	0.32	0.12
22	0.19	0.30	0.22	0.22	0.19	0.21	0.19	0.15	0.15	0.14	0.26	0.19
23	0.22	0.30	0.21	0.33	0.18	0.19	0.19	0.28	0.22	0.20	0.18	0.22
24	0.13	0.25	0.21	0.27	0.20	0.20	0.22	0.25	0.32	0.19	0.22	0.12
25	0.07	0.38	0.23	0.19	0.27	0.27	0.17	0.28	0.17	0.18	0.23	0.28
26	0.21	0.21	0.19	0.07	0.19	0.14	0.20	0.18	0.14	0.15	0.22	0.25
27	0.25	0.21	0.24	0.21	0.21	0.17	0.19	0.21	0.14	0.13	0.33	0.28
28	0.21	0.38	0.26	0.20	0.19	0.22	0.17	0.22	0.25	0.22	0.30	0.19
29	0.20	0.38	0.22	0.21	0.23	0.18	0.17	0.03	0.09	0.18	0.28	0.23
30	0.18	..	0.32	0.23	0.13	0.23	0.22	0.19	0.22	0.15	0.29	0.26
31	0.27	..	0.24	..	0.13	..	0.16	0.18	..	0.28	..	0.20
Total	5.87	6.88	7.70	6.09	6.34	6.20	6.20	5.78	6.77	5.48	6.69	7.22
Means	0.189	0.237	0.248	0.203	0.205	0.207	0.200	0.186	0.226	0.177	0.248	0.233

Total Evaporation for year 1932, 77.22 ins.

\* On the 8th, 9th and 10th November no gauging was practicable, owing to hurricane conditions, and heavy seas flooding the area.



No 676.



JAMAICA

# WEATHER REPORT.

FOR THE MONTH OF

APRIL, 1933.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32°, gravity at Lat. 45° and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small four-cup instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds cumulus and the Upper clouds, cirrus and cirro-stratus.

The rainfall is measured at 7 a.m., and entered as having fallen on the previous day.

The 75th Meridian Time West of Greenwich adopted from 1st February, 1912.

## METEOROLOGICAL RESULTS.

STATIONS.	Elevation.	Bar. Pressure		Temperature.				Extreme Temperature.					
						Max.	Min.	Range.	Max.	Date.	Min.	Date.	Range.
		7 a.m.	3 p.m.	7 a.m.	3 p.m.								
	ft.	ins.	ins.	°	°	°	°	°	°		°		°
Morant Point Light House	8	29.954	29.916	78.5	83.0	84.4	74.2	10.2	87.5	25	67.3	22	20.2
Kingston	24	29.928	29.870	74.8	85.2	86.9	70.7	16.2	92.3	13	67.7	1	24.6
Negril Point Light House	33	29.937	29.891	74.7	84.2	85.3	70.2	15.1	90.6	13	67.2	9	23.4
Castleton Gardens	496			66.1	81.3	87.4	65.1	22.3	91.0	12	60.0	21*	31.0
Hope Gardens†	668	29.965	29.880	71.4	84.9	87.0	67.2	19.8	91.0	14	65.0	9*	26.0
Boon Hall	970												
Hill Gardens	4,900	25.244	25.220	61.8	64.7	69.7	55.9	13.8	72.0	13*	53.0	19	19.0

STATIONS.	Elevation.	Dewpoint and Humidity.					Rainfall.	Wind per diem.	Wind, direction from and miles per hour.			Amount of Cloud Lower, Middle and Upper.					
		7 a.m.		3 p.m.					7 a.m.	3 p.m.		7 a.m.			3 p.m.		
		ft.	°	%	°	%			ins.	Mls.	m.	m.	L.	M.	U.	L.	M.
Morant Point Light House	8	71	76	73	70	1.65	222	E	9.0	E	9.0	0.8	2.3	0.2	0.1	2.5	0.0
Kingston	24	66	75	70	62	0.05	193	ENE	4.6	SE	14.2	0.4	1.1	0.4	1.8	1.7	0.4
Negril Point Light House	33	73	92	77	80	0.37	215	ENE	7.2	SE	14.0	0.9	0.1	2.7	2.1	2.7	0.9
Castleton Gardens	496	64	95	75	81	2.30	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	65	80	70	61	0.17	..	..	..	..	..	..	..	..	..	..	..
Boon Hall	970	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	58	86	61	87	0.44	..	..	..	..	..	..	..	..	..	..	..

\*And on other days.

†Hope Gardens Bar. read at 9 a.m. and 3 p.m.

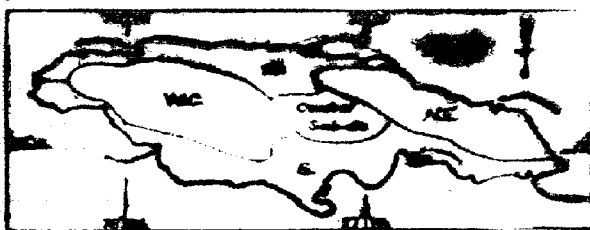


## THE RAINFALL.

The first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1919." In obtaining the mean Rainfall for the month only those stations are considered for which the average Rainfall has been also given in the last column so that the results derived from these two columns are comparable for each Division. These results are given in the comparative table at the end of this Rainfall Return so as to arrive at the mean for the whole Island, embracing the four Divisions.

The Northern Division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-divisions; the Southern Division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central Divisions are the remaining parts of the Island bounded by the sea and the other Divisions.

A Map showing these Rainfall Divisions is published in Mr. Maxwell Hall's "Rainfall of Jamaica," following page 27, 1911 Edition, and of page 20 of 1923 Edition, an outline of which is given below.



April, 1933.

STATIONS.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.				
		Amount.	Date.						
NORTH-EASTERN DIVISION. (N.E.)									
Manchioneal	2.01	1.03	29	3	6.64				
Priestman's River	0.10	0.10	3	1	5.03				
Bath	1.19	0.53	29	6	5.98				
Barrett's Gap	1.78	0.40	29	8					
Millbank	1.56	1.20	1	2					
Moore Town	2.00	1.00	1	5	11.18				
Port Antonio	0.15	0.10	2	2	6.55				
Passley Garden	1.03	0.85	2	3					
Fellowship	0.57	0.35	29	3	9.64				
Johnson River Br.	1.35	0.93	30	4	4.08				
Trinity Ville	1.08	0.93	29	2					
Shrewsbury	0.16	0.12	29	2	9.98				
Hope Bay	0.18	0.14	2	2					
Cedar Valley	1.01	0.60	29	5	4.04				
Moy Hall	0.84	0.46	29	7	3.89				
Paradise	0.61	0.61	1	1					
Lennox	0.32	0.26	30	2					
Greenvale	0.30	0.21	30	2	10.16				
Spring Garden	0.04			1	4.01				
Hill Gardens	0.44	0.35	1	2	5.65				
Buff Bay	0.00			0	6.26				
Orange Vale	0.00			0					
Belvedere, Portland	0.00			0	4.50				
Windsor Castle, do.	0.00			0	5.51				
Balcarras	0.00			0					
Mt. Holstein	0.21	0.09	3	3	7.03				
Cedar Hurst	0.21	0.07	2	6					
Hardware Gap	1.71	1.58	1	4	6.40				
Rose Hill	0.40	0.20	1	2	7.70				
Hermitage	0.94	0.28	3	6					
Mount James	2.19	1.74	3	3					
Stony Hill Ind. Sch.	0.46	0.22	29	3	5.21				
Boon Hall	0.87	0.36	2	5					
Brandon Hill	0.70	0.35	3	3					
NORTHERN DIVISION (N).									
Port Maria	0.00			0	4.00				
Wentworth	0.00			0					
Eden Park	2.89	0.78	30	8					
Oracabessa	0.00			0					
Huddersfield	0.00			0					
Ocho Rios	0.85	0.85	3	1	3.36				
Bogue, Ocho Rios	0.13	0.13	2	1	4.56				
Drax Hall	0.12	0.12	3	1	3.67				
Rockfield	0.52	0.31	3	3	5.02				
Liberty Hill	0.43	0.33	1	2	4.02				
St. Ann's Bay	0.19	0.15	3	2	3.70				
Seville					3.30				
Richmond Estate	0.07	0.04	30	2	3.58				
Llandoverly	0.00			0	3.45				
Runaway Bay	0.26	0.26	29	1	1.03				
Knapdale	2.03	1.94	29	2					
Alexandria	0.70	0.70	26	1	2.94				
Bel-Air	1.25	1.25	29	1					
Brown's Town	1.67	1.00	29	4	3.62				
Watt Town, St. Ann.	2.01	0.50	1	5	3.02				
Home Castle	0.60			1	3.22				
Richmond Pen	0.55	0.25	29	5	3.56				
Arcadia	0.95	0.79	1	3	2.56				
Vale Royal	0.66	0.66	1	1	2.94				
Harmony Hall	0.00			0	2.08				
Duncans	0.28	0.28	1	1					
Clark's Town	1.48	1.40	1	2					
Falmouth	0.97	0.65	1	2	2.06				
The Hague	0.27	0.22	28	2					
Wales	0.15	0.15	29	1					
Canaan					3.70				

April, 1933.

## STATIONS.

## NORTH-EASTERN DIVISION, contd.

STATIONS.	Total Fall.	Greatest fall in 24 hours.	Days on which 0.01 or more fell.	Average.
Ins.	Ins.	Date.	Ins.	
Iter Boreale	0.00		0	..
Enfield	0.00		0	..
Agualta Vale	0.04	0.04	1	4.60
Castleton Gardens	2.36	1.85	2	6.64
Water Valley	0.10	0.10	1	4.88
Albany	0.08	0.08	1	4.66
Lawrence Tavern	1.33	0.83	3	4.74
Richmond, St. Mary	0.00		0	4.54
Quebec, St. Mary	0.00		0	3.70
Above Rocks	1.03	0.53	29	3
Glengoffe	2.15	2.15	29	1
Carew Castle	1.49	1.24	29	2
Hampstead, St. Mary	0.20	0.10	3	2
Windsor Castle do.	1.57	1.44	3	2
Troja	0.82	0.40	3	4
Pear Tree Grove	1.34	0.52	3	4
Guy's Hill	0.78	0.45	3	5
Lucky Hill	0.33	0.25	3	2
Rio Hoe	1.23	0.68	4	4
Unity Valley	0.88	0.47	2	4
Moneague	0.92	0.25	1	5
Claremont	0.35	0.23	3	2
Averham Park	1.20	1.00	26	5
Albion	1.04	0.50	29	3

STATIONS.	April, 1933.					STATIONS.	April, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
NORTHERN DIVISION, <i>contd.</i>						WEST-CENTRAL DIVISION, <i>contd.</i>					
Grange	Ins.	Ins.			Ins.	Mandeville	Ins.	Ins.			Ins.
Adelphi	2.08	0.82	2	4	..	Ulster Spring	1.23	0.40	19	5	5.60
Success	0.24	0.15	2	2	1.84	Marshall's Pen	0.75	0.33	29	6	6.85
Rose Hall	0.15	0.10	2	2	1.78	Greenvale	1.83	0.66	29	3	6.25
Cinnamon Hill	0.18	0.10	2	2	1.83	Albert Town	0.84	0.58	26	6	..
Tryall	0.75	0.55	2	2	2.60	Craig Head	0.84	0.58	27	3	6.62
Running Gut	0.30	0.18	2	2	1.79	Warsop	3.74	3.00	26	3	..
Spring Estate	0.75	0.55	2	2	1.67	Troy	2.14	1.37	26	4	..
Friendship	3.29	2.25	1	6	2.72	Wallingford	1.60	1.11	26	5	8.28
Retirement	2.67	1.53	1	6	4.29	Balaclava	3.17	1.36	26	6	8.41
Rose Mount	..	..	..	..	..	Wakefield	3.20	1.15	26	6	9.03
Montego Bay	2.12	0.64	2	7	3.02	Maggotty	2.67	0.91	29	5	..
Anchovy	3.18	1.61	3	9	3.34	Lacovia	1.91	0.77	29	6	9.83
Bamboo-Hanover	3.20	1.55	2	7	..	Ipswich	2.84	0.92	29	4	..
Blue Hole	3.11	1.59	3	7	3.55	Kempshot	0.74	0.40	7	4	..
Kew	3.00	1.30	3	8	3.88	Mocho, St. James	3.99	1.57	2	7	4.90
Lucea	2.17	1.60	3	7	3.53	Garlands	3.10	1.75	1	7	..
Haughton Court	1.55	0.75	3	4	3.33	Mocho, St. James	5.10	2.10	3	7	..
Cousins Cove	2.79	0.89	3	8	..	Bandon Pen	2.63	1.01	3	4	..
Green Island	2.85	0.95	4	7	4.79	Catadupa	2.84	1.10	1	6	7.63
Haughton Hall	1.71	0.62	4	11	..	Cambridge, St. Jas.	3.52	1.95	1	8	7.13
CENTRAL SUB-DIVISION.						New Market	2.15	1.40	1	4	10.00
Knollis	0.60	0.45	1	2	..	Kew Park	1.37	0.65	1	5	7.99
Highgate	0.21	0.13	2	3	..	Montpelier	3.20	1.40	2	5	4.04
Rio Magno	1.66	1.42	2	5	..	The Bog	2.39	0.84	2	6	10.35
Riversdale	0.73	0.70	4	4	..	Bethel Town Dist.	1.45	0.65	16	7	8.81
Headworks, R.C.C.	0.97	0.78	29	2	3.46	Burnt Ground	1.54	0.47	2	5	5.75
Bog Walk	0.41	0.33	2	2	..	Haughton Grove	2.72	1.10	3	7	7.01
Linstead	0.93	0.82	1	4	4.46	Darliston	3.68	1.91	1	6	10.92
Ewarton	0.76	0.45	1	2	..	Bluefields	1.84	0.38	1	9	8.08
Cave Valley	1.48	0.72	26	4	4.63	Whithorn	5.32	2.80	1	4	7.13
Guanaboa Vale	1.70	1.29	29	2	..	Water Works Pen	6.84	4.84	1	6	7.43
Point Hill	0.81	0.64	29	2	5.52	Askenish	4.62	2.00	1	6	6.96
Brown's Hall	1.14	1.10	29	2	4.17	Grange Hill	1.93	0.70	1	7	7.01
Bellas Gate	2.65	2.10	29	2	2.39	King's Vale	3.56	1.40	4	6	5.64
Rock River	1.23	1.19	29	2	..	SOUTHERN DIVISION (S.)					
Crofts Hill	1.11	0.97	29	3	3.73	Morant Point L.H.	1.65	1.59	29	4	3.19
Far Enough	1.06	0.96	29	3	..	Golden Grove	0.83	0.37	29	5	..
Suttons	1.80	0.76	29	3	..	Pleasant Hill	0.43	0.29	29	2	2.19
Colonel's Ridge	1.00	0.87	29	2	..	East Prospect	0.86	0.56	4	7	4.23
Chapelton	0.63	0.46	18	3	3.73	Morant Bay	0.82	0.37	4	7	2.84
Crooked River	1.06	0.78	18	3	..	Aeolus Valley	0.62	0.62	29	1	..
James Hill	0.21	0.17	18	2	..	Yallahs	..	..	..	..	..
Frankfield	1.25	1.12	18	4	3.44	Eastington	0.56	0.53	29	2	2.00
WEST-CENTRAL DIVISION (W.C.)						Mavis Bank	0.53	0.30	29	2	..
Mocho, Clarendon	0.83	0.34	18	3	4.76	Bull Bay	0.08	0.08	29	1	0.93
Clarendon Park	0.16	0.09	1	3	..	Dallas Castle	0.23	0.10	29	3	..
Porus	1.90	0.98	18	3	..	Gordon Town	0.18	0.10	29	4	3.26
Borobridge	1.90	0.70	18	5	..	Irish Town	0.34	0.17	8	5	4.06
Spaldings	0.91	0.48	18	5	3.43	Hope Gardens	0.17	0.13	8	2	2.95
Williamshfield	0.81	0.44	29	3	..	Waieka	..	..	..	..	..
Brokenhurst	1.06	0.67	29	4	5.31	Ivor	..	..	..	..	..
Shooters Hill	0.50	0.24	29	3	4.17	Barbican	0.19	0.08	8	3	..
Lowe River	3.04	1.71	26	4	7.62	Plumb Point L.H.	0.09	0.09	29	1	1.15
Christiana	2.33	1.62	26	6	6.64	King's House Gar.	0.10	0.07	29	2	2.43
Clifton Hill	1.15	1.15	19	1	4.45	Upper Kingston	0.11	0.08	29	3	0.94
Kendal, Manchester	0.73	0.45	16	3	6.06	Kingston P.W.O.	0.05	0.04	29	2	1.17
Mereworth	1.74	0.49	30	10	..	Halfway Tree	0.06	0.03	29	2	1.86
						Clifton Pen	0.10	0.05	29	2	1.74
						Red Hills	0.62	0.41	1	2	..

STATIONS.	April, 1933.					STATIONS.	April, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
SOUTHERN DIVISION, <i>contd.</i>	Ins.	Ins.			Ins.	SOUTHERN DIVISION, <i>contd.</i>	Ins.	Ins.			Ins.
Quarantine Station	0.68	0.68	30	1	1.36	Great Valley, Man.	2.07	1.76	29	6	3.82
Hematine	1.20	1.17	29	2	2.49	Alligator Pond	1.05	1.05	29	1	2.97
Spanish Town	1.33	1.33	29	1	2.36	Fairfield	2.12	0.93	29	8	5.39
The Stewartry	1.71	1.71	29	1		Lititz	2.15	2.00	29	2	4.28
Hog Hole, St. Cath.	1.13	1.06	29	2	2.94	Myersville	2.39	1.30	29	5	
Old Harbour	0.55	0.55	29	1	2.81	Southfield, St. Eliz.	2.17	1.78	29	4	3.60
May Pen	1.30	0.60	30	5	3.00	Munro					
Glen Muir	1.35	0.50	24	4		Windsor, St. Eliz.	1.51	1.28	29	4	
Cottage	0.20	0.13	4	3		Torrington	2.05	1.80	29	3	4.86
Belle Plain	1.70	1.30	19	5		Santa Cruz	1.39	0.44	7	4	8.81
Milk River	0.54	0.32	29	3	2.22	Pedro Plains	0.77	0.77	29	1	2.64
Retrieve	1.75	1.75	29	1	2.59	Mountainside	0.50	0.50	29	1	5.20
Hog Hole, S. Man.	1.45	1.30	18	2	3.75	Fort Charles	0.35	0.35	29	1	
Stone's Hope	1.33	1.16	29	5	4.13	Black River	0.62	0.20	29	5	3.98
Newport, Man.	1.21	0.75	29	6	4.77	Font Hill	1.55	1.40	8	2	4.45
						Mount Edgecombe	0.55	0.23	7	5	5.32
						Sweet River	3.90	1.59	1	4	5.63
						Sav.-la-Mar	2.73	1.75	1	5	4.79
						Little London	2.84	1.54	2	4	4.88
						Retreat	0.95	0.47	1	3	4.91
						Negril Point L.H.	0.37	0.31	1	6	2.92

## NOTES.

## SHOCKS OF EARTHQUAKE IN APRIL, 1933.

COMPARATIVE TABLE OF RAINFALL AND RAINY DAYS.					Date.	Standard Time (Approx.)	Intensity.	Notes: where, etc.
DIVISIONAL		April.						
AND		Rainfall.		Rainy Days.				
ISLAND RAINFALL.		1932.	Ave.	1932.	Ave.			
North-Eastern.		Ins. 0.68	Ins. 5.80	3	10			
Northern		1.12	3.17	3	6			
West-Central		2.60	6.82	5	11			
Southern		1.08	3.28	3	7			
The Island means		1.37	4.77	4	9	None Reported.		

N.B. IT IS PARTICULARLY REQUESTED TO SEND ALL RAINFALL POSTCARDS IN NOT LATER THAN THE 6TH OF EACH MONTH.

## THE ISLAND—APRIL.

The mean rainfall for the month was very deficient in all Divisions, especially the North-eastern. Most of this restricted rainfall occurred during the first and last weeks of the months, particularly on the 1st and 29th.

The greatest total fall for the month was 6.84 inches at Waterworks Pen in the West-central Division, and the heaviest fall in 24 hours was 4.84 inches at the same station on the 1st.

No rain fell at 15 stations.

The mean number of rainy days was only 4, as compared with the average of 9. The greatest number was 11 at Houghton Hall in the Northern Division.

The mean rainfall in each parish is given below:—

Inches.			Inches.		
Kingston	--	0.08	St. James	..	2.17
St. Andrew	..	0.60	Hanover	..	2.66
St. Thomas	..	1.00	Westmoreland	..	2.74
Portland	..	0.48	St. Elizabeth	..	1.73
St. Mary	..	0.45	Manchester	--	1.40
St. Ann	..	0.80	Clarendon	--	1.16
Trelawny	--	1.16	St. Catherine	..	1.12

## CITY OF KINGSTON.

The total rainfall for April was only 0.05; the 60-year normal being 1.117 inch. The number of rainy days was 2, as compared with the 49-year average of 5.3. Greatest fall in 24 hours was 0.04 inch on 29th. The upper boundary of Kingston gauged 0.11 inch with 3 rainy days.

The mean barometric pressure was 29.907 ins., and the 33-year normal 29.941 ins., or 0.034 inch below the normal. Highest barometer reading was 29.969 ins. on 1st at 7 a.m., and the lowest 29.843 ins. on 20th at 3 p.m. (correc. for diur. var.).

Mean monthly temperature, based upon four observations per day, was 78.9 degs., the normal being 78.2 degs., shewing 0.7 deg. above the normal. The highest maximum temperature was 92.3 degs. on 13th, and the lowest minimum 67.7 degs. on 1st. Then, the lowest maximum was 84.6 degs. on 1st, owing to overcast and rainy conditions, and the highest minimum was 74.0 degs. on 26th, probably due to the SE wind prevailing throughout the previous night. The greatest range was 20.9 degs. on 13th, and the least range was 13.2 degs. on 29th, owing to light rain.

The mean daily miles of wind registered was 193; the 20-year normal being 186. Greatest number of miles of wind in one day was 375 on the 5th, and the least 130 on 8th and 11th.

The mean relative humidity was 73%, and the normal for 33 years being 78%, shewing 5% below the normal, owing to rainfall deficiency. The mean 7 a.m. was 75%, and the mean 3 p.m. 62%. Lowest 7 a.m. 67% on 1st and 21st, and the lowest 3 p.m. 47% on 20th.

The sky was overcast in the early morning on 4 occasions, and in the afternoon on 9.

The total evaporation for April was 7.60 ins., and the 10 year normal 7.75 ins.

Mean daily number of sunshine hours was 10.7, due to the large percentage of clear days.

## CAYMAN ISLANDS.

Government House, Georgetown, Grand Cayman. For the month of April, 1933, rainfall nil.

J. F. BRENNAN,  
Government Meteorologist.

Kingston, May 20th, 1933.

## CORRIGENDUM.

W.R. No. 673 January 1933. Cayman Islands Government House, Georgetown, Grand Cayman should read:—

Total fall 1.03 ins.; Greatest fall 0.56 inch on 10th with 4 rainy days.

No. 677.



JAMAICA  
**WEATHER REPORT.**  
FOR THE MONTH OF  
MAY, 1933.

The Bar. pressures at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32°, gravity at Lat. 45° and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screens; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small four-cup instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus: the Middle clouds cumulus and the Upper clouds, cirrus and cirro-stratus.

The rainfall is measured at 7 a.m., and entered as having fallen on the previous day.

The 75th Meridian Time West of Greenwich adopted from 1st February, 1912.

METEOROLOGICAL RESULTS.

STATIONS.	Elevation.	Bar. Pressure		Temperature.				Extreme Temperature					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Date.	Min.	Date.	Range.
		ins.	ins.	°	°	°	°	°	°	°	°	°	°
Morant Point Light House	8	29.948	29.916	80.4	84.0	85.5	76.6	8.9	87.1	25	65.6	4	21.5
Kingston	24	29.916	29.869	78.3	84.6	87.7	73.2	14.5	94.4	11	67.6	1	23.8
Negril Point Light House	33	29.926	29.891	78.3	83.4	86.1	72.2	13.9	89.0	11	66.6	2	22.4
Castleton Gardens	496			69.3	81.1	88.2	68.3	19.9	92.0	11*	59.0	1	33.0
Hope Gardens†	668	29.953	29.834	73.6	85.1	88.4	68.3	20.1	93.0	11	65.0	1	28.0
Boon Hall	970												
Hill Gardens	4,900	25.267	25.246	62.2	65.9	69.3	56.8	12.5	72.0	11*	55.0	1*	17.0

STATIONS.	Elevation.	Dewpoint and Humidity.				Rainfall.	Wind per diem.	Wind direction from and miles per hour.				Amount of Cloud Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		°	%	°	%			ins.	Mls.		m.		m.	L.	M.	U.	L.
Morant Point Light House	8	75	82	74	75	2.47	253	E	11.0	ESE	10.0	1.3	2.6	1.7	1.2	2.5	2.1
Kingston	24	69	74	72	67	2.85	208	ENE	4.5	SE	17.7	1.0	0.6	1.6	3.7	1.1	2.0
Negril Point Light House	33	74	86	76	80	2.62	198	ENE	7.6	Var.	12.1	0.9	0.4	5.5	3.4	4.2	0.1
Castleton Gardens	496	67	95	76	86	10.08	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	68	82	70	62	1.82	..	..	..	..	..	..	..	..	..	..	..
Boon Hall	970	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	59	87	61	84	2.28	..	..	..	..	..	..	..	..	..	..	..

\*And on other days. †Hope Gardens Bar read at 9 a.m. and 3 p.m.

## THE RAINFALL.

The first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1919." In obtaining the mean Rainfall for the month only those stations are considered for which the average Rainfall has been also given in the last column so that the results derived from these two columns are comparable for each Division. These results are given in the comparative table at the end of this Rainfall Return so as to arrive at the mean for the whole Island, embracing the four Divisions.

The Northern Division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-divisions; the Southern Division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central Divisions are the remaining parts of the Island bounded by the sea and the other Divisions.

A Map showing these Rainfall Divisions is published in Mr. Maxwell Hall's "Rainfall of Jamaica," following page 27, 1911 Edition, and of page 20 of 1923 Edition, an outline of which is given below.



May, 1933.

STATIONS.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.						
		Amount.	Date.								
NORTH-EASTERN DIVISION. (N.E.)						NORTHERN DIVISION (N.).					
Manchioneal	5.78	1.36	14	18	12.66	Port Maria	2.18	0.50	28	12	6.31
Priestman's River	3.07	1.30	15	8	10.55	Wentworth	1.57	0.30	30	11	..
Bath	5.13	0.98	13	18	12.33	Eden Park	0.85	0.45	31	2	..
Barrett's Gap	5.64	1.55	14	17	..	Oracabessa	4.05	2.12	29	7	..
Millbank	4.67	1.46	14	12	..	Huddersfield	2.90	0.75	15	7	..
Moore Town	4.22	0.93	10	11	16.68	Ocho Rios	2.81	1.26	28	6	5.22
Port Antonio	3.34	1.40	14	13	13.73	Bogue, Ocho Rios	4.98	1.35	26	11	5.54
Passley Garden	2.86	1.13	14	12	..	Drax Hall	2.81	1.00	31	7	6.67
Fellowship	2.40	1.63	14	9	16.19	Rockfield	5.87	0.90	26	11	5.94
Johnson River Br.	5.93	2.30	28	11	9.56	Liberty Hill	2.64	0.83	28	9	4.72
Trinity Ville	1.68	0.97	28	3	..	St. Ann's Bay	2.73	1.23	31	12	5.30
Shrewsbury	1.87	1.32	14	4	13.52	Seville	3.81	1.18	31	9	6.08
Hope Bay	2.00	1.06	14	14	..	Richmond Estate	2.32	0.64	31	7	6.14
Cedar Valley	3.17	1.38	14	4	9.10	Llandoverly	3.40	1.00	30	7	6.08
Moy Hall	2.16	1.46	14	10	9.25	Runaway Bay	3.74	1.98	28	8	2.23
Paradise	2.24	1.28	14	6	..	Knapdale	8.26	1.97	30	12	..
Lennox	2.23	0.57	14	9	..	Alexandria	6.50	2.44	27	13	7.29
Greenvale	9.97	2.43	25	9	9.27	Bel-Air	6.80	3.05	28	11	..
Spring Garden	1.66	0.80	28	4	6.05	Brown's Town	6.02	1.90	29	16	8.61
Hill Gardens	2.28	0.50	13	8	9.77	Watt Town, St. Ann.	6.15	1.60	31	7	8.24
Buff Bay	3.33	0.85	26	9	7.97	Home Castle	2.70	1.20	29	6	5.60
Orange Vale	9.24	2.40	26	10	..	Richmond Pen	6.55	1.75	31	7	7.30
Belvedere, Portland	3.35	1.20	28	7	6.08	Arcadia	2.22	0.54	25	11	4.89
Windsor Castle, do.	2.36	0.65	28	7	5.86	Vale Royal	2.88	0.59	27	12	5.82
Balcarres	8.00	2.13	25	8	..	Harmony Hall	3.13	0.90	29	8	4.49
Mt. Holstein	5.54	1.11	26	12	10.07	Duncans	2.06	0.60	27	5	..
Cedar Hurst	5.35	1.60	25	16	..	Clark's Town	6.70	2.45	29	9	..
Hardware Gap	8.52	1.75	25	13	11.24	Falmouth	1.03	0.50	14	4	4.48
Rose Hill	8.30	1.37	23	14	12.52	The Hague	2.47	1.30	27	6	..
Hermitage	6.62	1.84	23	16	..	Wales	5.15	2.35	27	8	..
Mount James	16.34	4.70	28	13	..	Canaan	14.90	2.30	19	18	7.73
Stony Hill Ind. Sch.	8.09	3.28	29	15	9.29						
Boon Hall	7.91	1.72	29	17	..						
Brandon Hill	12.35	4.00	28	15	..						

STATIONS.	May, 1933.					STATIONS.	May, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
NORTHERN DIVISION, <i>contd.</i>						WEST-CENTRAL DIVISION, <i>contd.</i>					
Grange	Ins. 3.00	Ins. 1.50	31	4	Ins. .	Mandeville	Ins. 7.03	Ins. 1.78	13	11	9.93
Adelphi	11.67	2.85	30	15	. .	Ulster Spring	8.96	1.87	30	14	11.90
Success	1.51	0.55	31	7	4.25	Marshall's Pen	5.97	2.23	14	8	9.66
Rose Hall	1.20	0.45	31	7	4.24	Greenvale	6.33	2.51	31	11	. .
Cinnamon Hill	1.45	0.40	31	7	4.78	Albert Town	6.86	1.25	27	15	10.58
Tryall	2.80	1.05	10	10	6.05	Craig Head	13.03	3.03	23	13	. .
Running Gut	1.75	0.50	31	7	4.74	Warsop	14.02	2.71	27	15	. .
Spring Estate	1.65	0.65	10	7	4.28	Troy	20.90	3.10	29	16	14.60
Friendship	6.23	2.37	29	17	7.85	Wallingford	15.59	2.15	26	18	11.80
Retirement	8.27	2.64	29	19	8.50	Balaclava	12.11	1.90	6	16	12.13
Rose Mount	4.12	1.58	28	15	. .	Wakefield	9.15	1.70	31	14	. .
Montego Bay	7.49	2.77	27	15	7.12	Maggotty	14.82	2.64	31	15	13.21
Anchovy	5.78	0.82	8	17	8.00	Lacovia	6.83	2.10	24	9	. .
Bamboo-Hanover	6.89	2.06	20	14	. .	Ipswich	17.87	3.47	29	17	. .
Blue Hole	. .	. .	. .	. .	12.10	Kempshot	12.58	2.84	23	22	10.19
Kew	15.00	2.70	30	17	11.28	Garlands	13.87	3.22	29	21	. .
Lucea	8.92	2.34	24	20	8.53	Mcho, St. James	14.04	1.50	27	20	. .
Haughton Court	7.04	2.48	24	12	8.89	Bandon Pen	14.58	2.15	25	16	. .
Cousins Cove	14.47	2.56	21	19	. .	Catadupa	14.78	2.45	29	19	15.76
Green Island	10.02	2.70	21	19	9.84	Cambridge, St. Jas.	14.89	2.56	29	20	13.30
Haughton Hall	9.87	2.32	27	21	. .	New Market	14.37	3.50	28	15	12.50
CENTRAL SUB-DIVISION.						Kew Park	18.13	2.48	28	18	12.97
Knollis	5.35	1.95	31	12	. .	Montpelier	14.36	1.70	27	17	10.59
Highgate	5.61	1.80	22	19	. .	The Bog	14.33	2.03	28	19	14.15
Rio Magno	6.97	2.17	19	15	. .	Bethel Town Dist.	23.71	3.84	29	23	16.95
Riversdale	6.23	1.00	24	15	. .	Burnt Ground	19.12	3.21	29	20	13.74
Headworks, R.C.C.	3.03	1.26	31	7	7.31	Haughton Grove	18.53	3.94	28	18	13.98
Bog Walk	5.91	1.80	31	11	. .	Darliston	18.16	3.92	24	21	16.30
Linstead	5.70	2.03	27	17	9.69	Bluefields	8.83	2.45	24	19	11.86
Ewarton	4.70	1.05	12	13	. .	Whithorn	16.52	2.18	28	20	13.29
Cave Valley	4.86	0.91	22	12	9.10	Water Works Pen	14.16	3.07	27	15	11.86
Guanaboa Vale	3.11	1.55	14	5	. .	Askenish	14.52	2.57	27	21	12.65
Point Hill	3.13	1.52	15	9	11.11	Grange Hill	10.82	1.40	23	21	13.44
Brown's Hall	3.58	1.20	14	9	8.38	King's Vale	14.10	1.82	21	20	11.38
Bellas Gate	2.67	1.23	15	5	5.57	SOUTHERN DIVISION (S.)					
Rook River	5.57	2.10	15	9	. .	Morant Point L.H.	2.47	0.62	14	13	8.68
Crofts Hill	8.69	3.51	20	9	7.16	Golden Grove	3.16	0.76	7	11	. .
Far Enough	7.82	1.88	15	15	. .	Pleasant Hill	3.72	0.90	14	14	7.69
Suttons	3.42	1.33	15	11	. .	East Prospect	5.53	1.19	30	12	8.88
Colonel's Ridge	6.38	2.00	15	12	. .	Morant Bay	3.99	1.30	13	15	7.31
Chapelton	4.23	1.40	15	10	8.55	Aeolus Valley	7.00	2.20	14	9	. .
Crooked River	4.73	1.45	15	12	. .	Yallahs	3.10	2.00	14	4	. .
James Hill	6.55	1.39	14	13	. .	Easington	4.94	2.23	13	6	6.26
Frankfield	4.23	1.30	14	12	7.52	Mavis Bank	1.92	0.50	25	8	. .
WEST-CENTRAL DIVISION (W.C.)						Bull Bay	1.21	0.73	13	3	3.87
Mcho, Clarendon	3.77	1.65	14	7	9.71	Dallas Castle	2.61	0.69	14	10	. .
Clarendon Park	3.56	1.70	14	6	. .	Gordon Town	4.57	1.23	21	12	7.13
Porus	4.02	2.00	14	6	. .	Irish Town	6.52	1.70	24	12	6.56
Borobridge	6.64	1.80	22	10	. .	Hope Gardens	1.83	0.63	6	11	6.23
Spaldings	6.25	1.73	24	10	7.74	Waireka	5.55	2.30	3	7	. .
Williamsfield	5.06	2.23	14	9	. .	Ivor	. .	. .	. .	. .	. .
Brokenhurst	7.07	3.62	14	9	9.59	Barbican	1.33	0.43	22	9	. .
Shooters Hill	4.43	1.86	14	7	7.34	Plumb Point L.H.	2.19	1.40	14	6	4.57
Lowe River	9.43	1.84	23	15	11.38	King's House Gar.	1.23	0.85	22	3	5.84
Christiana	7.31	1.48	22	13	10.69	Upper Kingston	2.29	1.16	1	7	2.44
Clifton Hill	6.56	4.00	14	9	6.67	Kingston P.W.O.	2.85	1.26	1	7	4.01
Kendal, Manchester	6.89	3.39	14	8	9.83	Halfway Tree	1.21	0.50	22	7	4.63
Mereworth	10.49	4.64	14	11	. .	Clifton Pen	3.01	1.50	22	5	3.94
						Red Hills	2.12	0.70	14	4	. .

STATIONS.	May, 1933.					STATIONS.	May, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
SOUTHERN DIVISION, contd.	Ins.	Ins.			Ins.	SOUTHERN DIVISION, contd.	Ins.	Ins.			Ins.
Quarantine Station	1.58	0.82	15	2	3.33	Great Valley, Man.	5.97	2.32	14	6	6.42
Hematine	1.46	0.82	14	4	6.19	Alligator Pond	4.02	1.32	14	4	5.15
Spanish Town	1.63	0.97	14	4	5.82	Fairfield	3.01	1.33	14	11	7.55
The Stewartry	2.60	1.10	31	4	..	Lititz	1.74	0.72	14	5	4.98
Hog Hole, St. Cath.	1.52	0.84	14	5	6.65	Myersville	1.45	0.75	29	4	..
Old Harbour	3.58	1.50	14	5	5.25	Southfield, St. Eliz.	3.36	1.74	13	6	5.88
May Pen	4.61	2.35	14	8	5.85	Munro	..	..	..	..	..
Glen Muir	4.30	2.50	15	4	6.44	Windsor, St. Eliz.	1.27	0.45	14	9	..
Cottage	4.59	2.95	13	10	..	Torrington	1.34	0.88	13	2	6.26
Belle Plain	4.25	2.39	14	5	..	Santa Cruz	6.35	2.37	29	10	11.02
Milk River	3.76	2.20	14	5	5.66	Pedro Plains	1.22	0.74	14	2	3.48
Retrieve	2.74	1.64	14	4	4.77	Mountainside	0.00	..	..	0	3.73
Hog Hole, S. Man.	5.90	3.30	14	5	6.82	Fort Charles	1.17	0.62	22	3	..
Stone's Hope	5.79	1.92	14	8	8.51	Black River	4.11	1.03	14	11	6.57
Newport, Man.	6.79	1.92	14	9	8.02	Font Hill	3.35	1.20	22	7	7.40
						Mount Edgecombe	4.20	0.98	28	14	8.37
						Sweet River	8.96	2.28	11	15	9.88
						Sav.-la-Mar	5.95	1.02	11	15	8.60
						Little London	5.95	1.20	11	20	9.89
						Retreat	4.73	1.30	21	8	9.03
						Negril Point L.H.	2.62	0.70	11	13	6.25

## NOTES.

## SHOCKS OF EARTHQUAKE IN MAY, 1933.

COMPARATIVE TABLE OF RAINFALL AND RAINY DAYS.					Date.	Standard Time (Approx.)	Intensity.	Notes: where, etc.
DIVISIONAL  AND  ISLAND RAINFALL.	May.				12th	3.00 a.m.	I	All over the Island.
	Rainfall.		Rainy Days.					
	1932.	Ave.	1932.	Ave.				
	Ins.	Ins.						
North-Eastern ..	4.62	9.76	11	13				
Northern ..	4.50	5.89	11	10				
West-Central ..	12.33	12.06	15	15				
Southern ..	3.60	6.38	8	10				
The Island means ..	6.26	8.52	11	12				

**N.B. IT IS PARTICULARLY REQUESTED TO SEND ALL RAINFALL POSTCARDS IN NOT LATER THAN THE 6TH OF EACH MONTH.**



## THE ISLAND—MAY.

The mean rainfall for the month was fairly good but still deficient in all Divisions except the West-Central, which had slightly over the average.

The greatest precipitation occurred on the 14th and 15th, and from the 27th to the 31st.

The greatest total fall for the month was 23.71 inches at Bethel Town District in the West-Central Division and the heaviest fall in 24 hours was 4.70 inches at Mount James in the North-Eastern Division on the 28th.

No rain fell at Mountainside in the Southern Division.

The mean number of rainy days was 11, one less than the average. The greatest number was 23 at Bethel Town District.

There was a heavy hail storm on the 12th at Linstead, Bandon Pen, The Bog, Bethel Town, Water Works Pen and Mount Edgecombe.

The mean rainfall in each parish is given below:—

	Inches.		Inches.
Kingston .. ..	2.44	St. James .. ..	8.05
St. Andrew .. ..	5.79	Hanover .. ..	12.44
St. Thomas .. ..	4.15	Westmoreland .. ..	11.41
Portland .. ..	4.17	St. Elizabeth .. ..	6.32
St. Mary .. ..	3.36	Manchester .. ..	5.85
St. Ann .. ..	4.59	Clarendon .. ..	5.60
Trelawny .. ..	6.78	St. Catherine .. ..	4.42

## CITY OF KINGSTON.

The total rainfall for the month of May was 2.85 ins., the 60-year normal being 4.02 ins., shewing about three-quarters of the normal. The total number of rainy days was seven, as against the 49-year average of 7.4 days. Greatest fall in 24 hours 1.56 inch on 1st. The upper boundary of Kingston gauged 2.29 ins. with 7 rainy days. Distant rain to northward on 8 days, to NE on 5 days and to NW on 3 days.

The mean barometric pressure was 29.898 ins., and the 33-year normal 29.910 ins., shewing 0.012 inch under the normal. Highest barometer reading 29.978 ins. on 6th at 7 a.m., and the lowest 29.837 ins. on 2nd at 7 a.m. (correc. for diur. variation).

Mean monthly temperature, based upon four observations per day, was 80.4 degs., or 0.7 deg. above normal of 79.7 degs. Highest maximum temperature was 91.4 degs. on 11th, and the lowest minimum temp. was 67.6 degs. on 1st, (a day of heavy rain). Then, the lowest maximum was 85.2 degs. on 2nd, and the highest minimum 78.7 degs. on 24th. The greatest range of temperature was 19.4 degs. on 1st, and the least range 8.7 degs. on 24th. The maximum was above 90 degs. once and the minimum was below 70 degs. on three occasions.

The mean daily miles of wind registered was 208, which corresponds with the 20-year normal. The greatest number of miles of wind in one day was 383 on 15th, and the least 114 on 2nd. Southeasterly wind continued after 7 p.m. on 11 occasions, and continued throughout the night of the 15th. Southeasterly rainsqualls on 14th and 15th.

The mean relative humidity was 75%, as compared with the 33-year normal of 79%, shewing 4% below normal, owing, no doubt, to rainfall deficiency. The mean 7 a.m. was 74% and the mean 3 p.m. 67%. Lowest 7 a.m. 60% on 1st, and lowest 3 p.m. 43% on 11th.

The sky was overcast in the early morning on 8 occasions, and in the afternoon on 19 occasions.

The total evaporation for May was 7.79 inches, and the 10-year normal 7.91 ins.

The mean daily number of sunshine hours was 7.8.

## EARTHQUAKES.

There was a slight shock of earthquake felt at Kingston on 2nd May at 10.10 p.m., direction S-N lasting about 3 seconds, horizontal movement 0.02 inch, Intensity I. Reported as having been felt also at Clarendon.

Then, there was a sharp shock, felt throughout the Island on 12th at 3 a.m. Felt at Kingston, lasting about 6 seconds, horizontal movement of 0.06 inch, direction S-N, about Intensity IV. No damage reported.

## CAYMAN ISLANDS.

Government House, Georgetown, Grand Cayman.—For the month of May, 1933, the total rainfall was 3.53 ins. The greatest fall in 24 hours was 1.82 inch on 15th, with 7 rainy days.

J. F. BRENNAN,  
Government Meteorologist.

Kingston,  
June 20th, 1933.



JAMAICA

# WEATHER REPORT.

FOR THE MONTH OF

JUNE, 1933.

The Bar. pressure at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32°, gravity at Lat. 45° and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screen; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small four-cup instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds cumulus and the Upper clouds, cirrus and cirro-stratus.

The rainfall is measured at 7 a.m., and entered as having fallen on the previous day.

The 7th Meridian Time West of Greenwich adopted from 1st February, 1912.

## METEOROLOGICAL RESULTS.

STATIONS.	Elevation.	Bar. Pressure		Temperature.				Extreme Temperature.					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Date.	Min.	Date.	Range.
	ft.	ins.	ins.	°	°	°	°	°	°		°		°
Morant Point Light House	8	29.925	29.904	81.4	83.5	85.5	77.9	7.6	87.1	21	72.9	3	14.2
Kingston	24	29.901	29.864	77.8	84.4	87.3	73.5	13.8	91.2	30	70.2	13	21.0
Negril Point Light House	33	29.900	29.881	78.3	83.2	86.3	73.3	13.0	90.0	25	70.6	13	19.4
Castleton Gardens	496			71.4	80.7	86.2	70.4	15.8	94.0	25*	66.0	20	28.0
Hope Gardens†	668	29.929	29.868	74.6	83.3	86.1	70.0	16.1	90.0	22*	68.0	13*	22.0
Boon Hall	970												
Hill Gardens	4,900	25.264	25.238	63.6	66.0	69.4	58.9	10.5	73.0	29	57.0	1	16.0

STATIONS.	Elevation.	Dewpoint and Humidity.					Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.					7 a.m.	3 p.m.			7 a.m.			3 p.m.		
	ft.	°	%	°	%	ins.	Mls.		m.		m.	L.	M.	U.	L.	M.	U.	
Morant Point Light House	8	76	84	77	79	12.59	263	ENE	13.0	ENE	12.0	3.9	1.9	1.7	2.0	3.0	1.9	
Kingston	24	72	84	74	72	11.83	185	ESE	4.2	SE	14.1	2.9	0.8	1.8	4.5	0.8	1.9	
Negril Point Light House	33	73	85	75	78	10.78	198	ENE	6.6	ENE	9.6	2.3	0.7	5.9	4.6	4.3	0.3	
Castleton Gardens	496	69	95	77	87	34.55	..	..	..	..	..	..	..	..	..	..	..	
Hope Gardens	668	70	83	72	70	12.02	..	..	..	..	..	..	..	..	..	..	..	
Boon Hall	970	..	..	..	..	16.86	..	..	..	..	..	..	..	..	..	..	..	
Hill Gardens	4,900	62	91	62	87	17.03	..	..	..	..	..	..	..	..	..	..	..	

\*And on other days. † Hope Gardens Bar. read at 9 a.m. and 3 p.m.

## THE RAINFALL.

THE first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1919." In obtaining the mean Rainfall for the month only those stations are considered for which the average Rainfall has been also given in the last column so that the results derived from these two columns are comparable for each Division. These results are given in the comparative table at the end of this Rainfall Return so as to arrive at the mean for the whole Island, embracing the four Divisions.

The Northern Division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-divisions; the Southern Division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central Divisions are the remaining parts of the Island bounded by the sea and the other Divisions.

A Map showing these Rainfall Divisions is published in Mr. Maxwell Hall's "Rainfall of Jamaica," following page 27, 1911 Edition, and of page 20 of 1923 Edition, an outline of which is given below.



June, 1933.

STATIONS.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
NORTH-EASTERN DIVISION. (N.E.)					
Manchioneal	25.18	9.82	4	21	6.76
Priestman's River	20.06	5.00	4	15	4.99
Bath	23.64	3.95	4	25	10.91
Barrett's Gap	22.48	3.08	4	25	..
Millbank	32.43	4.79	4	25	..
Moore Town	30.58	5.50	4	24	18.56
Port Antonio	21.07	3.78	17	27	14.32
Passley Garden	18.49	4.33	4	25	..
Fellowship	22.63	4.74	17	21	17.26
Johnson River Br.	27.83	5.50	4	23	11.52
Trinity Ville	22.88	4.85	5	18	..
Shrewsbury	17.74	6.00	4	22	11.08
Hope Bay	15.89	3.34	4	22	..
Cedar Valley	12.00	1.47	6	20	11.22
Moy Hall	23.90	4.02	1	23	11.64
Paradise	13.58	4.51	4	21	..
Lennox	14.19	5.85	4	19	..
Greenvale	10.59	2.62	4	18	3.66
Spring Garden	8.97	2.95	4	18	3.92
Hill Gardens	17.07	3.89	5	16	6.73
Buff Bay	8.86	2.90	4	19	6.60
Orange Vale	10.72	3.60	4	19	..
Belvedere, Portland	8.95	2.95	4	8	1.98
Windsor Castle, do.	8.43	3.85	4	15	5.00
Balcarres	..	..	..	..	..
Mt. Holstein	14.44	3.34	4	21	5.54
Cedar Hurst	13.84	3.58	4	19	..
Hardware Gap	19.46	3.01	6	18	6.58
Rose Hill	15.68	6.19	5	17	6.18
Hermitage	15.16	2.50	6	19	..
Mount James	16.94	4.00	5	21	..
Stony Hill Ind. Sch.	17.23	5.06	5	19	6.53
Boon Hall	16.86	4.63	5	21	..
Brandon Hill	16.00	3.30	5	20	..

June, 1933.

STATIONS.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
NORTH-EASTERN DIVISION, contd.					
Iter Boreale	14.41	3.00	4	14	..
Enfield	8.79	2.98	4	16	2.93
Agualta Vale	34.55	7.55	5	21	8.82
Castleton Gardens	10.31	2.56	3	12	3.74
Water Valley	12.51	3.46	3	18	3.01
Albany	15.97	4.20	5	17	6.27
Lawrence Tavern	17.66	4.03	3	15	4.69
Richmond, St. Mary	11.55	2.01	5	17	4.48
Quebec, St. Mary	12.54	4.40	5	13	..
Above Rocks	15.21	4.40	4	10	..
Glengoffe	13.02	4.00	5	11	8.51
Carew Castle	14.20	3.25	8	18	3.57
Hampstead, St. Mary	12.34	3.40	5	16	..
Windsor Castle do.	16.75	4.39	5	20	..
Troja	13.85	3.10	5	18	..
Pear Tree Grove	12.04	4.20	5	16	5.74
Guy's Hill	12.34	3.44	5	18	3.66
Lucky Hill	10.64	3.15	5	19	7.47
Rio Hoe	13.64	3.82	5	19	7.72
Unity Valley	9.50	3.03	5	22	7.39
Moneague	10.48	3.30	5	13	5.04
Claremont	11.98	2.50	5	19	4.94
Averham Park	12.58	3.24	5	10	6.16
Albion					
NORTHERN DIVISION (N).					
Port Maria	11.14	2.05	4	17	4.86
Wentworth	10.80	1.92	8	18	..
Eden Park	10.63	2.85	3	12	..
Oracabessa	15.31	4.80	3	16	..
Huddersfield	14.94	4.71	3	9	..
Ocho Rios	9.38	1.85	3	12	3.16
Bogue, Ocho Rios	8.75	2.25	3	13	3.75
Drax Hall	9.32	3.11	3	11	4.50
Rockfield	10.07	2.80	5	12	3.10
Liberty Hill	7.85	1.96	4	9	3.58
St. Ann's Bay	9.74	3.07	3	11	3.67
Seville					4.04
Richmond Estate	9.04	2.56	1	10	4.10
Llandoverly					3.86
Runaway Bay	6.79	2.75	5	8	1.29
Knapdale	9.13	2.51	5	14	..
Alexandria	8.52	1.84	5	14	3.18
Bel-Air	10.65	3.95	4	11	..
Brown's Town	11.11	3.27	4	16	3.55
Watt Town, St. Ann	3.17	1.30	3	6	3.86
Home Castle	10.62	3.55	4	10	3.60
Richmond Pen	7.50	1.95	4	12	4.58
Arcadia	10.63	3.10	4	18	3.70
Vale Royal	10.68	4.00	4	14	4.09
Harmony Hall	12.10	5.00	4	9	2.56
Duncans	13.59	6.56	5	8	..
Clark's Town	8.09	4.65	5	13	..
Falmouth	14.02	3.88	5	10	2.40
The Hague	15.67	4.08	5	14	..
Wales	15.30	4.00	5	14	..
Canaan	22.85	4.02	4	20	6.64

STATIONS.	June, 1933.					STATIONS.	June, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
NORTHERN DIVISION, contd.						WEST-CENTRAL DIVISION, contd.					
Grange	10.20	5.00	4	7	..	Mandeville	11.63	2.73	3	21	2.82
Adelphi	15.05	4.06	4	18	..	Ulster Spring	10.49	3.20	4	17	6.31
Success	10.87	3.80	5	10	2.19	Marshall's Pen	11.39	3.00	4	15	6.05
Rose Hall	10.54	4.15	5	11	2.70	Greenvale	12.64	5.26	4	18	..
Cinnamon Hill	9.85	3.75	5	11	2.78	Albert Town	10.83	3.37	4	13	5.35
Tryall	9.90	3.45	5	9	5.08	Craig Head	13.27	3.00	4	10	..
Running Gut	10.05	3.10	5	12	2.86	Warsop	13.11	2.37	4	21	..
Spring Estate	9.95	3.70	5	9	2.63	Troy	15.76	3.10	16	15	8.13
Friendship	12.38	3.23	4	16	6.04	Wallingford	7.02	1.85	4	15	5.05
Retirement	10.33	3.27	4	17	6.82	Balaclava	7.04	1.47	4	15	4.52
Rose Mount	8.86	1.96	4	19	..	Wakefield	15.48	3.60	4	21	..
Montego Bay	10.22	1.87	4	14	6.17	Maggotty	13.10	3.56	4	16	6.53
Anchovy	9.82	1.35	1	24	6.78	Lacovia	10.87	3.48	15	10	..
Bamboo-Hanover	12.62	2.72	4	22	..	Ipswich	13.58	2.11	7	21	..
Blue Hole	19.65	3.67	7	20	11.30	Kempshot	10.59	2.05	5	22	8.57
Kew	15.90	3.30	2	20	8.60	Garlands	14.94	3.00	4	22	..
Lucea	14.12	2.48	8	20	7.90	Mcho, St. James	16.74	1.75	3	22	..
Haughton Court	11.49	1.75	2	17	8.17	Bandon Pen	18.57	2.75	4	24	..
Cousins Cove	12.53	2.08	2	21	..	Catadupa	16.76	4.00	4	23	9.83
Green Island	14.49	2.00	16	22	11.93	Cambridge, St. James	14.90	2.00	4	23	9.97
Haughton Hall	16.06	1.75	11	26	..	New Market	18.60	4.30	4	16	7.99
CENTRAL SUB-DIVISION.						Kew Park	14.53	4.60	3	17	9.21
Knollis	18.53	4.55	5	22	..	Montpelier	..	..	..	..	7.40
Highgate	14.97	3.94	5	23	..	The Bog	12.90	2.52	4	23	8.37
Rio Magno	12.44	3.00	5	17	..	Bethel Town Dist.	15.20	3.42	4	23	11.15
Riversdale	21.26	5.10	5	17	..	Burnt Ground	14.09	2.58	5	23	10.07
Headworks, R.C.C.	..	..	..	..	4.56	Haughton Grove	15.35	3.50	4	21	8.80
Bog Walk	20.98	6.07	4	14	..	Darliston	22.51	2.91	24	21	10.53
Linstead	16.79	5.20	4	22	7.24	Bluefields	12.31	2.40	4	22	9.42
Ewarton	20.68	7.00	4	19	..	Whithorn	17.94	2.80	28	14	10.16
Cave Valley	12.43	1.92	2	21	7.11	Water Works Pen	14.23	2.00	4	18	8.87
Guanaboa Vale	10.85	2.50	5	13	..	Askenish	23.10	3.55	2	24	15.10
Point Hill	25.92	8.72	4	13	8.23	Grange Hill	22.82	4.30	1	22	11.09
Brown's Hall	18.32	3.50	4	14	9.18	King's Vale	13.46	2.85	2	22	11.84
Bellas Gate	12.43	2.70	7	10	1.82	SOUTHERN DIVISION (S.)					
Rock River	13.06	2.98	5	13	..	Morant Point L.H.	12.59	3.84	4	21	5.59
Crofts Hill	23.42	4.95	3	19	3.52	Golden Grove	19.95	6.19	4	18	..
Far Enough	12.85	3.32	5	16	..	Pleasant Hill	20.52	5.00	2	21	3.79
Suttons	..	..	..	..	..	East Prospect	19.61	4.89	2	22	6.38
Colonel's Ridge	..	..	..	..	..	Morant Bay	20.86	3.67	2	23	7.59
Chapelton	13.98	2.45	5	14	5.98	Acolus Valley	22.00	3.80	1	22	..
Crooked River	11.02	2.55	4	19	..	Yallahs	20.74	5.24	4	14	..
James Hill	15.30	1.60	30	18	..	Easington	19.10	4.39	4	17	7.36
Frankfield	15.74	1.68	3	21	4.37	Mavis Bank	15.74	3.86	4	16	..
WEST-CENTRAL DIVISION (W.C.)						Bull Bay	11.88	3.47	4	10	3.90
Mcho, Clarendon	14.74	2.04	12	12	6.25	Dallas Castle	24.25	7.56	5	13	..
Clarendon Park	14.48	3.40	12	17	..	Gordon Town	14.71	3.96	5	14	4.10
Porus	13.68	2.30	7	15	..	Irish Town	10.73	1.70	5	19	3.93
Borobridge	15.14	2.22	3	16	..	Hope Gardens	12.02	3.30	5	18	4.66
Spaldings	12.37	1.95	5	19	4.10	Waireka	8.51	2.30	4	9	..
Williamsfield	15.71	2.73	5	21	..	Ivor	..	..	..	..	..
Brokenhurst	16.32	3.44	5	18	9.92	Barbican	11.56	3.30	5	14	..
Shooters Hill	11.46	4.25	5	16	4.86	Plumb Point L. H.	13.22	4.62	5	11	3.85
Lowe River	12.98	3.05	4	19	5.50	King's House Gar.	12.86	2.45	5	14	3.82
Christiana	10.26	2.52	4	19	5.96	Upper Kingston	12.25	4.33	5	14	0.99
Clifton Hill	14.34	3.80	5	12	4.06	Kingston P.W.O.	11.83	4.27	5	14	3.53
Kendal, Manchester	10.97	3.70	5	17	7.05	Halfway Tree	14.35	5.25	5	13	3.24
Mereworth	14.54	2.85	4	16	..	Clifton Pen	13.91	6.62	5	11	3.43
						Red Hills	15.10	5.15	5	10	..

STATIONS.	June, 1933.					STATIONS.	June, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
SOUTHERN DIVISION, <i>contd.</i>	Ins.	Ins.			Ins.	SOUTHERN DIVISION, <i>contd.</i>	Ins.	Ins.			Ins.
Quarantine Station	11.80	3.30	5	11	2.19	Great Valley, Man. . .	14.72	3.85	5	15	6.02
Hematine	10.72	3.75	5	14	2.41	Alligator Pond	11.60	4.14	4	8	3.65
Spanish Town	11.20	3.80	5	14	4.08	Fairfield	12.41	2.72	5	21	5.32
The Stewartry	14.92	4.53	5	13	..	Lititz	9.21	3.33	5	15	1.69
Hog Hole, St. Cath.	..	..	..	..	4.43	Myersville	11.77	3.31	29	11	..
Old Harbour	8.88	1.90	5	10	5.30	Southfield, St. Eliz. . .	8.54	2.79	4	15	2.72
May Pen	14.95	3.52	5	19	5.11	Munro	..	..	..	..	..
Glen Muir	10.80	3.00	7	8	..	Windsor, St. Eliz.	12.46	2.50	5	16	..
Cottage	11.05	1.99	1	16	..	Torrington	11.42	3.30	4	8	3.06
Belle Plain	15.29	2.86	7	15	..	Santa Cruz	10.76	3.55	4	10	5.15
Milk River	11.35	3.45	4	15	4.88	Pedro Plains	6.99	2.60	5	11	2.10
Retrieve	11.99	2.22	7	12	2.74	Mountainside	8.33	2.85	1	4	2.04
Hog Hole, S. Man.	16.61	4.05	4	12	3.05	Fort Charles	7.04	2.12	5	9	..
Stone's Hope	15.99	4.38	5	17	7.44	Black River	8.91	2.73	1	16	3.58
Newport, Man.	14.00	4.05	5	20	6.99	Font Hill	12.65	2.40	2	14	4.74
						Mount Edgecombe	12.39	2.95	4	18	6.11
						Sweet River	11.89	2.00	16	18	7.18
						Sav.-la-Mar	13.68	3.25	2	19	6.61
						Little London	14.48	4.33	2	18	8.52
						Retreat	11.58	2.00	1	15	7.39
						Negril Point L.H.	10.78	1.88	2	20	5.59

## NOTES.

## SHOCKS OF EARTHQUAKE IN JUNE, 1933.

COMPARATIVE TABLE OF RAINFALL  
AND RAINY DAYS.

COMPARATIVE TABLE OF RAINFALL AND RAINY DAYS.						Date.	Standard Time (Approx.)	Intensity.	Notes: where, etc.
DIVISIONAL		June.				29th	8.45 a.m.	IV	All over the Island.
AND		Rainfall.		Rainy Days.					
ISLAND RAINFALL.		1932.	Ave.	1932.	Ave.				
North-Eastern	..	Ins. 15.84	Ins. 7.72	18	11				
Northern	..	12.19	5.10	15	9				
West-Central	..	14.17	8.57	18	13				
Southern	..	12.82	5.01	15	18				
The Island means	..	13.76	6.60	17	10				

N.B. IT IS PARTICULARLY REQUESTED TO SEND ALL RAINFALL POSTCARDS IN NOT LATER THAN THE 6TH OF EACH MONTH.

## THE ISLAND—JUNE.

The mean rainfall for the Island was much above the average in all Divisions—

The heaviest falls occurred during the first week, particularly on the 4th and 5th but the rainfall generally was well distributed, the mean number of rainy days being 17, as compared with the average of 10. The greatest number was 27 at Port Antonio.

The greatest total fall was 34.55 inches at Castleton Gardens in the North-Eastern Division, and the heaviest fall in 24 hours was 9.82 inches at Manchioneal in the same Division on the 4th.

The mean rainfall in each parish is given below:—

	Inches.		Inches.
Kingston .. ..	12.43	St. James .. ..	12.67
St. Andrew .. ..	14.93	Hanover .. ..	15.40
St. Thomas .. ..	20.58	Westmoreland .. ..	14.71
Portland .. ..	16.67	St. Elizabeth .. ..	10.49
St. Mary .. ..	14.10	Manchester .. ..	13.65
St. Ann .. ..	9.68	Clarendon .. ..	14.05
Trelawny .. ..	12.77	St. Catherine .. ..	15.31

The total rainfall for the first six months of the year is given below, and shews a deficiency of 2.77 inches as compared with the 60-year average.

	1933.	60-Year Average.
	Inches.	Inches.
January .. ..	1.43	4.00
February .. ..	0.48	3.13
March .. ..	4.30	3.35
April .. ..	1.37	4.77
May .. ..	6.26	8.52
June .. ..	13.76	6.60
	<u>27.60</u>	<u>30.37</u>

## CITY OF KINGSTON.

The total rainfall for June was 11.83 inches; the 60-year normal being 3.51 ins. This gives the greatest rainfall since June, 1915, when 14.51 ins. total was registered. The number of rainy days was 14 as compared with the 49-year average of 6.4. The greatest fall in 24 hours was 4.27 ins. on 5th. The upper boundary of Kingston gauged 12.25 ins. with 14 rainy days. Distant rain was observed to north on 6 days, to NE on 2, to ESE on one day, to SE 3, to south one and to SW on one day.

The mean barometric pressure was 29.889 ins., and the 33-year normal 29.932 ins.; shewing 0.043 inch under the normal. Highest barometer reading 29.959 ins. on 29th at 7 a.m., and the lowest 29.800 ins. on 2nd at 7 a.m. (correc. for diur. var.). With the exception of March the pressure continues to be below the normal from January.

Mean monthly temperature, based upon four observations per day, was 80.2 degs., giving 0.7 deg. below the normal of 80.9 degs. Highest maximum temperature was 91.2 degs. on 30th, and the lowest minimum 70.2 degs. on 13th. Then, the lowest maximum was 82.7 degs. on 2nd, on a rainy day, and the highest minimum 77.9 degs. on 27th. Greatest range of temperature was 18.8 degs. on 29th, and the least 8.5 degs. on 27th. Maximum above 90 degs. on four days. Minimum above 70 degs. throughout.

The mean daily miles of wind registered was 185, as compared with 20-year normal of 239. The greatest number of miles of wind in one day was 286 on 25th, and the least 73 on 2nd. South-easterly wind commenced early on five occasions, and continued after 7 p.m. on 15 occasions. South-easterly rainsqualls on 7th, 17th and 24th.

The mean relative humidity for the month was 81%, as compared with the 33-year normal of 78%, shewing 3% above the normal, owing to excessive rainfall. The mean 7 a.m. was 84%, and the mean 3 p.m. 72%. The lowest 7 a.m. was 71% on 11th, and the lowest 3 p.m. 55% on 30th.

The sky was overcast in the early morning on 13 occasions, and in the afternoon on 22 occasions.

Distant lightning observed to NE on 2 days, to ESE on 2 days. Distant thunderstorm to north on 4 days, to NE on 2 days, to ESE on 1, to SE on 2, to south 3, to west one day and to NW on 6 days. Moderate local thunderstorm on 12th.

The total evaporation for the month of June was 5.35 ins., as against the 10-year average of 6.93 ins.

Mean daily number of sunshine hours 7.9.

## EARTHQUAKE.

There was a sharp shock of earthquake felt nearly throughout the Island on 29th at 8 hrs. 44 mins. a.m. (75th Mer. Standard Time). At Kingston the duration was about 9 seconds, with a principal direction of SSE-NNW. The extreme horizontal movement was 0.200 inch. It was experienced as a double shock.

## HURRICANE.

The details concerning the hurricane which organized in the vicinity of Trinidad on 27th June, will be dealt with in the July Weather Report.

Kingston, July 20th, 1933.

J. F. BRENNAN,  
Government Meteorologist.

CORRIGENDUM.—W.R. 678, May, 1933, Page 4, Earthquake.—Intensity: for I read IV.



# JAMAICA WEATHER REPORT.

FOR THE MONTH OF

JULY, 1933.

The Bar. pressure at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32°, gravity at Lat. 45° and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screen; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small four-cup instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds cumulus and the Upper clouds, cirrus and cirro-stratus.

The rainfall is measured at 7 a.m., and entered as having fallen on the previous day.

The 7th Meridian Time West of Greenwich adopted from 1st February, 1912.

## METEOROLOGICAL RESULTS.

STATIONS.	Elevation.	Bar. Pressure		Temperature.				Extreme Temperature.					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Date.	Min.	Date.	Range.
		ft.	ins.	ins.	°	°	°	°	°	°	°	°	°
Morant Point Light House	8	29.965	29.947	82.3	84.4	86.1	78.7	7.4	87.9	28	73.9	8*	14.0
Kingston	24	29.935	29.907	77.5	85.7	88.0	73.5	14.5	92.4	24	69.3	24	23.1
Negril Point Light House	33	29.944	29.925	78.2	84.4	87.2	73.5	13.7	93.7	30	70.6	23	23.1
Castleton Gardens	496			70.4	81.2	87.7	69.4	18.3	94.0	10	64.0	24	30.0
Hope Gardens†	668	29.965	29.923	74.6	85.3	87.8	69.7	18.1	92.0	13	67.0	18*	25.0
Boon Hall	970												
Hill Gardens	4,900	25.296	25.266	64.2	67.9	71.9	58.8	13.1	77.0	14	57.0	1	20.0

STATIONS.	Elevation.	Dewpoint and Humidity.					Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.					7 a.m.	3 p.m.			7 a.m.			3 p.m.		
	ft.	°	%	°	%	ins.	Mls.		m.		m.	L.	M.	U.	L.	M.	U.	
Morant Point Light House	8	76	82	76	76	14.52	309	ENE	15.0	ENE	12.0	2.6	1.6	2.3	1.2	2.3	2.0	
Kingston	24	71	81	74	69	9.86	227	E	5.8	SE	16.2	2.1	0.9	2.5	2.9	1.1	3.2	
Negril Point Light House	33	72	83	75	76	4.34	216	ENE	8.1	Var.	12.7	2.2	0.8	5.1	2.2	5.6	1.2	
Castleton Gardens	496	69	95	77	88	19.91	..	..	..	..	..	..	..	..	..	..	..	
Hope Gardens	668	71	85	73	67	13.45	..	..	..	..	..	..	..	..	..	..	..	
Boon Hall	970	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Hill Gardens	4,900	61	90	63	84	11.56	..	..	..	..	..	..	..	..	..	..	..	

\*And on other days. † Hope Gardens Bar. read at 9 a.m. and 3 p.m.

## THE RAINFALL.

The first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1919." In obtaining the mean Rainfall for the month only those stations are considered for which the average Rainfall has been also given in the last column so that the results derived from these two columns are comparable for each Division. These results are given in the comparative table at the end of this Rainfall Return so as to arrive at the mean for the whole Island, embracing the four Divisions.

The Northern Division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-divisions; the Southern Division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central Divisions are the remaining parts of the Island bounded by the sea and the other Divisions.

A Map showing these Rainfall Divisions is published in Mr. Maxwell Hall's "Rainfall of Jamaica," following page 27, 1911 Edition, and of page 20 of 1923 Edition, an outline of which is given below.



July, 1933.

STATIONS.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	
		Amount.	Date.			
NORTH-EASTERN DIVISION. (N.E.)						
Manchioneal	18.31	Ins.	Ins.	17	15	5.49
Priestman's River	18.00	4.20	17	8	5.64	
Bath	23.55	10.43	17	19	7.93	
Barrett's Gap	28.38	11.88	17	21	..	
Millbank	31.81	7.21	17	18	..	
Moore Town	35.21	6.45	17	22	16.27	
Port Antonio	23.57	5.87	17	16	10.25	
Passley Garden	19.11	5.02	17	7	..	
Fellowship	22.14	6.34	17	18	13.80	
Johnson River Br.	22.97	7.95	17	16	6.63	
Trinity Ville	19.78	6.35	17	10	..	
Shrewsbury	19.13	4.22	1	13	8.89	
Hope Bay	12.95	3.26	17	18	..	
Cedar Valley	8.25	1.37	17	10	4.19	
Moy Hall	24.45	8.80	17	13	5.16	
Paradise	12.75	3.13	17	11	..	
Lennox	10.53	2.29	17	13	..	
Greenvale	9.17	2.86	17	8	3.57	
Spring Garden	9.14	3.00	17	9	3.95	
Hill Gardens	11.56	3.04	17	14	3.36	
Buff Bay	9.16	2.40	17	9	6.15	
Orange Vale	8.47	2.30	17	8	..	
Belvedere, Portland	8.45	2.75	1	6	2.37	
Windsor Castle, do.	9.30	2.85	17	9	3.89	
Balcarras	6.75	4.00	17	4	..	
Mt. Holstein	16.17	4.03	17	12	4.72	
Cedar Hurst	13.68	3.88	17	13	..	
Hardware Gap	16.93	7.26	17	13	3.90	
Rose Hill	15.87	8.33	17	5	5.40	
Hermitage	10.36	3.85	17	14	..	
Mount James	13.63	3.94	17	12	..	
Stony Hill Ind. Sch.	16.30	5.22	17	13	4.87	
Boon Hall	14.35	6.40	17	13	..	
Brandon Hill	13.39	4.08	3	13	..	

July, 1933.

STATIONS.	July, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
<b>NORTH-EASTERN DIVISION, contd.</b>					
Iter Boreale	Ins.	Ins.			Ins.
Enfield	8.07	2.11	17	7	..
Agualta Vale	5.98	2.56	17	11	3.15
Castleton Gardens	19.91	7.50	17	15	5.86
Water Valley	4.99	2.30	17	8	3.13
Albany	5.09	2.40	17	11	3.63
Lawrence Tavern	14.12	5.82	17	15	5.09
Richmond, St. Mary	5.72	3.05	17	13	3.26
Quebec, St. Mary	5.01	2.15	17	8	3.42
Above Rocks	11.26	4.46	17	13	..
Glengoffe	14.74	4.36	10	8	..
Carew Castle	10.54	4.34	17	11	6.24
Hampstead, St. Mary	4.11	2.40	17	9	2.87
Windsor Castle do.	6.66	2.72	17	3	..
Troja	12.39	3.10	17	12	..
Pear Tree Grove	9.70	3.17	5	8	..
Guy's Hill	8.57	3.70	17	12	3.83
Lucky Hill	7.01	2.35	4	9	2.85
Rio Hoe	6.67	2.60	1	10	4.09
Unity Valley	11.36	3.98	1	12	5.49
Moneague	10.22	2.88	1	13	4.51
Claremont	6.59	4.00	1	9	3.23
Averham Park	8.25	4.36	1	13	2.91
Albion	12.55	5.20	1	14	3.98
<b>NORTHERN DIVISION (N).</b>					
Port Maria	5.47	2.20	17	10	3.84
Wentworth	5.13	2.05	17	9	..
Eden Park	..	..	..	..	..
Oracabessa	6.73	2.60	1	8	..
Huddersfield	3.18	1.75	17	3	..
Ocho Rios	3.01	1.68	1	5	2.10
Bogue, Ocho Rios	4.49	2.00	1	6	2.62
Drax Hall	5.65	3.90	1	6	2.86
Rockfield	11.19	10.02	17	6	2.91
Liberty Hill	2.09	0.74	21	4	2.08
St. Ann's Bay	5.27	2.80	1	8	2.83
Seville	..	..	..	..	2.46
Richmond Estate	5.89	3.20	1	5	2.20
Llandoverly	..	..	..	..	1.96
Runaway Bay	5.14	3.00	1	6	1.06
Knapdale	8.37	5.41	1	8	..
Alexandria	5.46	3.50	1	9	2.86
Bel-Air	5.95	4.05	1	6	..
Brown's Town	7.26	5.35	1	12	2.39
Watt Town, St. Ann	3.65	2.00	1	4	3.00
Home Castle	8.55	5.40	1	7	2.18
Richmond Pen	..	..	..	..	2.95
Arcadia	..	..	..	..	2.16
Vale Royal	9.81	4.00	1	13	2.64
Harmony Hall	6.90	4.30	1	10	1.45
Duncans	..	..	..	..	3.03
Clark's Town	7.23	4.20	1	6	..
Falmouth	4.86	3.47	1	5	1.46
The Hague	5.30	3.00	1	10	..
Wales	6.40	3.40	1	5	..
Canaan	9.30	3.26	1	14	4.36



July, 1933.						July, 1933.					
STATIONS.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	STATIONS.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
NORTHERN DIVISION, <i>contd.</i>						WEST-CENTRAL DIVISION, <i>contd.</i>					
Grange	4.77	3.60	1	4	..	Mandeville	21.64	14.20	1	12	5.38
Adelphi	6.72	2.95	1	11	..	Ulster Spring	6.86	5.50	1	6	5.35
Success	3.90	2.50	1	7	1.30	Marshall's Pen	19.13	12.00	1	8	4.82
Rose Hall	3.61	2.30	1	7	1.13	Greenvale	12.36	7.80	1	15	..
Cinnamon Hill	3.50	2.50	1	6	1.18	Albert Town	6.46	4.37	1	7	4.92
Tryall	3.65	2.10	1	6	3.54	Craig Head	8.46	6.50	1	4	..
Running Gut	4.35	2.80	1	7	1.24	Warsop	7.61	4.65	1	10	..
Spring Estate	3.60	2.15	1	5	1.44	Troy	7.64	4.06	1	8	6.94
Friendship	8.06	4.30	1	12	2.88	Wallingford	9.27	5.62	1	9	5.18
Retirement	8.13	4.04	1	9	4.01	Balaclava	7.86	3.55	1	9	4.69
Rose Mount	4.66	2.37	1	10	..	Wakefield	7.13	2.84	1	14	..
Montego Bay	3.66	3.02	1	3	3.21	Maggotty	10.50	5.64	1	10	8.35
Anchovy	6.98	2.29	1	14	4.49	Lacovia	4.99	3.30	1	4	..
Bamboo-Hanover	4.42	2.32	1	2	..	Ipswich	11.09	5.05	1	13	..
Blue Hole	8.64	1.80	21	10	5.85	Kempshot	7.93	3.03	1	7	5.68
Kew	11.35	3.05	21	15	5.08	Garlands	14.50	5.30	1	18	..
Lucea	10.86	2.92	1	17	4.93	Mocho, St. James	12.51	3.40	1	18	..
Haughton Court	9.92	2.35	1	9	4.63	Bandon Pen	8.43	1.73	28	10	..
Cousins Cove	10.74	1.52	24	17	..	Catadupa	10.93	4.59	1	18	9.36
Green Island	8.05	1.93	20	17	8.59	Cambridge, St. James	11.39	3.30	1	19	9.59
Haughton Hall	9.06	2.64	20	20	..	New Market	9.81	4.48	1	16	8.36
CENTRAL SUB-DIVISION.						Kew Park	12.61	3.76	1	17	9.85
Knollis	7.80	3.60	17	13	..	Montpelier	6.45	2.05	1	11	6.12
Highgate	10.56	5.02	17	15	..	The Bog	10.46	4.61	1	15	9.11
Rio Magno	9.12	1.75	27	13	..	Bethel Town Dist.	12.12	4.24	1	20	14.74
Riversdale	14.16	3.60	17	13	..	Burnt Ground	10.24	3.02	1	14	8.81
Headworks, R.C.C.	8.90	4.47	17	8	2.99	Haughton Grove	10.69	2.94	1	15	8.47
Bog Walk	10.59	3.80	1	12	..	Darlington	10.99	4.27	1	16	11.42
Linstead	12.45	3.15	17	15	5.88	Bluefields	13.27	5.07	1	16	9.32
Ewarton	11.60	4.05	1	11	..	Whithorn	15.15	4.22	1	13	10.12
Cave Valley	13.96	8.30	1	11	4.54	Water Works Pen	8.36	3.45	1	12	9.40
Guanaboa Vale	10.58	5.30	1	7	..	Askenish	12.85	2.95	1	13	10.38
Point Hill	21.58	6.87	1	15	6.17	Grange Hill	13.51	4.58	1	17	11.11
Brown's Hall	10.21	3.81	17	8	5.20	King's Vale	8.56	1.57	1	15	9.82
Bellas Gate	8.27	4.30	1	7	1.30	SOUTHERN DIVISION (S.)					
Rock River	11.89	7.92	1	9	..	Morant Point L.H.	14.52	7.41	17	18	3.17
Crofts Hill	14.70	9.89	1	9	2.68	Golden Grove	13.94	7.38	17	15	..
Far Enough	12.64	7.10	1	15	..	Pleasant Hill	17.95	9.82	17	15	3.19
Suttons	14.58	9.79	1	11	..	East Prospect	22.71	10.95	17	16	4.30
Colonel's Ridge	13.14	8.84	1	9	..	Morant Bay	16.22	7.60	17	17	4.95
Chapelton	16.37	11.95	1	13	3.12	Aeolus Valley	18.32	7.00	17	15	..
Crooked River	16.10	10.90	1	13	..	Yallahs	13.38	4.30	17	13	..
James Hill	16.82	10.40	1	13	..	Easington	14.92	4.15	17	10	4.87
Frankfield	22.86	16.10	1	12	4.50	Mavis Bank	17.34	9.17	17	10	..
WEST-CENTRAL DIVISION (W.C.)						Bull Bay	9.36	4.70	17	5	1.68
Mocho, Clarendon	24.64	20.95	1	5	3.46	Dallas Castle	21.44	9.11	17	10	..
Clarendon Park	22.88	17.96	1	6	..	Gordon Town	18.34	9.99	17	7	2.38
Porus	21.72	16.86	1	6	..	Irish Town	11.32	4.20	17	7	1.73
Borobridge	17.19	12.30	1	10	..	Hope Gardens	13.45	5.40	17	8	2.50
Spaldings	19.47	13.98	1	15	3.79	Waireka	11.38	8.50	17	5	..
Williamsfield	16.90	10.93	1	17	..	Ivor	..	..	..	..	..
Brokenhurst	22.50	14.79	1	10	4.73	Barbican	11.49	7.77	17	6	..
Shooters Hill	11.45	10.21	1	16	4.88	Plumb Point L. II.	11.64	6.50	17	6	1.75
Lowe River	16.03	11.92	1	10	4.17	King's House Gar.	10.66	7.34	17	5	2.37
Christiana	13.11	9.77	1	15	4.09	Upper Kingston	11.75	7.77	17	8	1.58
Clifton Hill	19.30	14.00	1	8	4.97	Kingston P.W.O.	9.86	6.45	17	10	1.53
Kendal, Manchester	14.71	10.20	1	8	5.13	Halfway Tree	11.76	5.58	17	7	1.53
Mereworth	27.33	17.92	1	10	..	Clifton Pen	13.12	7.85	17	7	1.33
						Red Hills	10.00	6.60	17	5	..

STATIONS.	July, 1933.					STATIONS.	July, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
SOUTHERN DIVISION, contd.						SOUTHERN DIVISION, contd.					
Quarantine Station	Ins. 13.87	Ins. 6.70	17	8	Ins. 0.92	Great Valley, Man.	Ins. 14.79	Ins. 9.91	1	9	Ins. 2.86
Hematine	10.82	3.44	17	7	1.14	Alligator Pond	11.47	7.80	1	6	2.01
Spanish Town	10.38	3.90	17	6	1.90	Fairfield	13.93	9.57	1	14	2.69
The Stewartry						Lititz	7.25	5.50	1	4	1.44
Hog Hole, St. Cath.	11.36	5.25	17	8	2.19	Myersville	7.90	5.63	1	5	
Old Harbour	11.96	5.00	1	7	1.99	Southfield, St. Eliz.	11.60	6.45	1	8	1.88
May Pen	18.88	13.76	1	9	2.76	Munro					
Glen Muir	18.00	12.00	1	3		Windsor, St. Eliz.	7.94	6.10	1	6	
Cottage	18.92	12.33	1	12		Torrington	8.18	6.35	1	2	2.29
Belle Plain	27.72	20.50	1	5		Santa Cruz	3.30	0.91	10	4	5.25
Milk River	25.05	18.28	1	5	1.62	Pedro Plains	7.25	4.62	1	4	1.52
Retrieve	10.74	7.04	1	4	1.53	Mountainside	6.33	3.81	1	4	2.81
Hog Hole, S. Man.	13.25	6.50	1	6	2.84	Fort Charles	5.49	4.44	1	2	
Stone's Hope	19.28	14.03	1	8	3.50	Black River	6.16	4.47	1	6	4.52
Newport, Man.	19.70	13.40	1	12	3.28	Font Hill	8.75	6.45	1	4	5.45
						Mount Edgecombe	10.36	5.46	4	13	6.82
						Sweet River	6.98	3.65	1	14	7.46
						Sav.-la-Mar	8.76	3.92	1	12	6.10
						Little London	10.12	4.12	1	9	6.20
						Retreat	6.47	3.20	1	8	7.43
						Negril Point L.H.	4.34	2.83	1	13	5.83

# NOTES.

# SHOCKS OF EARTHQUAKE IN JULY, 1933.

COMPARATIVE TABLE OF RAINFALL AND RAINY DAYS.					Date.	Standard Time (Approx.)	Intensity.	Notes: where, etc.
DIVISIONAL  AND  ISLAND RAINFALL.		July.						None Reported.
		Rainfall.		Rainy Days.				
		1932.	Ave.	1932.	Ave.			
		Ins.	Ins.					
North-Eastern		12.93	5.25	12	10			
Northern		8.09	3.19	10	7			
West-Central		12.62	7.56	12	13			
Southern		12.11	3.03	9	7			
The Island means		11.44	4.76	11	9			

N.B. IT IS PARTICULARLY REQUESTED TO SEND ALL RAINFALL POSTCARDS IN NOT LATER THAN THE 6TH OF EACH MONTH.

\*Gauge overflowed.

## THE ISLAND.—JULY.

The mean rainfall for the Island was very much above the average in all Divisions, and was the highest recorded in July during the past 63 years.

Owing to the presence of weather disturbances in the Caribbean, which passed near to the Island, very heavy flood rains occurred on the 1st and 17th, causing serious damage to roads and bridges, particularly in the parishes of Clarendon and Manchester. Apart from these floods, the rainfall was well distributed, as the mean number of rainy days was 11, the average being 9. Moore Town with 22 had the most rainy days.

The greatest total fall for the month was 35.21 inches at Moore Town in the North-Eastern Division, and the heaviest fall in 24 hours was 20.95 inches at Mocho in the West-Central Division.

The mean rainfall in each parish is given below:—

	Inches.		Inches.
Kingston	11.68	St. James	7.00
St. Andrew	13.49	Hanover	9.71
St. Thomas	18.52	Westmoreland	16.12
Portland	15.39	St. Elizabeth	7.86
St. Mary	6.65	Manchester	16.98
St. Ann	7.22	Clarendon	17.91
Trelawny	7.69	St. Catherine	11.37

## CITY OF KINGSTON.

The total rainfall for the month of July was 9.86 inches, the 60-year normal being 1.54 inch. This is a phenomenal total for July, and claims the greatest record in July for the past 63 years, and owing, no doubt, to the weather disturbance which passed between Cuba and Jamaica. The greatest fall in 24 hours was 6.45 inches occurring on the 17th. The total number of rainy days was 10, and the average for 49 years was 5.2. The upper boundary of Kingston gauged a total of 11.75 inches, with 8 rainy days. Distant rain was observed to northward on 7 days, to NE on 2 days, to SE on one day and to seaward on 2 days.

The mean barometric pressure was 29.933 ins., and the 33-year normal 29.960 ins., shewing 0.027 inch under the normal. Highest barometer reading 30.019 ins. on 18th at 3 p.m., and the lowest 29.789 ins. on 1st at 7 a.m. (correc. for diur. var.). The lowest barometer occurred at the time of a passing hurricane to the SW on the 1st.

Mean monthly temperature, based upon four observations per day, was 80.7 degs., the 33-year normal being 81.4 degs., or 0.7 deg. below normal. Highest maximum temperature 92.4 degs. on 24th, and the lowest minimum 69.3 degs. on 24th (a rainy day). Then, the lowest maximum was 74.2 degs. on 17th (a very rainy day), and the highest minimum 78.8 degs. on 4th. The greatest range of temperature was 23.1 degs. on 24th, and the least range 4.1 degs. on 17th. The maximum was above 90 degs. on 6 days, and the minimum was below 70 degs. on one day.

The mean daily miles of wind registered was 227, which corresponds with the 20-year normal. Greatest number of miles of wind in one day was 395 on the 1st, and the least 114 on 15th. South-easterly wind commenced early on 5 occasions, and continued after 7 p.m. on 26 days.

Distant lightning to ESE on 2 days. Distant thunderstorm to north on 5 days, to NE on 2, to SE on 3, to south on 3 and to westward on one day. Sharp local thunderstorm on 1st and 16th. South-easterly rainsqualls on 1st, 18th, 19th and 20th. Continued haze throughout the month; somewhat dense about the middle of the month.

Mean relative humidity was 79%, and the 33-year normal 76%, or 3% above the normal, owing to heavy precipitation. The mean 7 a.m. was 81%, and the mean 3 p.m. 69%. Lowest 7 a.m. 74%, on 2nd, 12th, 23rd and 27th and the lowest 3 p.m. 48% on 24th.

The sky was overcast in the early morning on 15 occasions, and in the afternoon on 20 occasions.

The total evaporation for the month of July was 7.78 inches and the 10-year normal gives 7.87 inches. Mean daily number of sunshine hours 8.2.

## WEATHER DISTURBANCES.

On 28th June, Washington, U.S.A., issued a warning as to the existence of a tropical disturbance of great intensity, and of small diameter, apparently moving north-westerly, about 100 miles to the west of Port of Spain, Trinidad.

This disturbance proceeded in West-North-westward track in the southern Caribbean, and passed in the vicinity of Curacao on 28th June. It then arrived at a point to the south of Kingston, Jamaica, during the evening of 30th June, moving then somewhat north-westerly, and was about 125 miles to the south-west of Negril Point, Jamaica, on the 1st July in the early morning. It then continued in its track to the vicinity of Grand Cayman Islands, during the night of 1st July, afterwards proceeding to the extreme western Cuba, on the night of 2nd July. It traversed western Cuba and then moved into the Gulf of Mexico.

The damages sustained in the southern section of Trinidad were very extensive. There were 13 deaths, and a large number suffered injury, as reported, as the result of the hurricane which passed over the country on Tuesday night the 27th June. The property loss has been estimated at \$3,000,000. At Morant Point, Jamaica, there was high NE wind of 30 to 40 miles per hour on 30th June, and it so continued at 40 miles per hour until the morning of 1st July. The barometric pressure at Kingston and Morant Point fell to 0.16 inch below the normal at about 10 a.m. on 1st July. There were flood rains in many parts of the Island of Jamaica, which caused material damage to the recently erected iron bridge at Low Ground, in the parish of Clarendon. There was some loss to banana cultivation arising from the excessive rains. There was a heavy rainfall of over 20 inches. The Railway lines to Montego Bay and to Frankfield were blocked by landslides. No lives were lost from hurricane wind, but two lives of fishermen at sea were reported lost. Then, at Grand Cayman, between the hours of 10 p.m. 1st July, to Sunday 4 a.m. on 2nd July, cultivated fields were destroyed, also the uprooting of large trees. There was some loss to shipping at Cayman. The 86-ton schooner, "Wembley," drove ashore, as well as the schooner "Albion." The yawl of the late Mr. Watler, and the yawl "Amanda" suffered badly.

At the extreme west end of Cuba the storm swept the Pinar del Rio Province. Seven persons reported killed, and many injured. It is estimated that the property losses amount to several thousand dollars. Tobacco plantations suffered somewhat.

2. On the 14th July, Washington reported the existence of a tropical disturbance of slight intensity, central near to the island of St. Kitts, Leeward Islands, apparently moving west-north-westward. This disturbance passed to the south of Porto Rico during the night of the 14th, and then to the south of San Domingo in the evening of the 15th, somewhat westerly in its course. When nearing Jamaica the course deflected in a west-north-westward direction, and the centre was estimated to be a short distance to the north of Port Antonio, Jamaica, during the afternoon of the 16th. Afterward proceeding on this course it was located near to Campeche, Yucatan, on 18th July, and then following a north-westerly track into the Gulf of Mexico.

Copious showers of rain again fell in Jamaica, after the floods of the early part of July. Roads and bridges experienced material amount of damages. The lowest barometer reading at Kingston was 0.15 of an inch below the normal, on the 15th at 11 p.m.

3. On the 26th July, a weather disturbance appeared to the north of Guadeloupe, between the islands of St. Kitts and St. Martin, of slight intensity, moving west-north-westward. It was near north of San Juan, Porto Rico, on 26th, in the forenoon. Then passed to the south of Turk's Island (and north of Santo Domingo) on 27th, in the forenoon, causing heavy rains and wind of gale force from the south-east. This storm then changed its direction somewhat to north-west, and was to the south of Great Abaco Island on the 29th and proceeded towards Florida State (U.S.A.), near to Palm Beach, on 30th. Traversing southern Florida on 30th and 31st, and into the Gulf of Mexico, about 230 miles to the south of Apalachee Bay on 1st August, and continued westerly into Mexico.

The lowest barometer reading at Kingston was 0.100 of an inch below the normal on 27th at 7 a.m.

#### CAYMAN ISLANDS.

Government House, Georgetown, Grand Cayman.—For the month of July, 1933, the total rainfall was 7.87 ins. The greatest fall in 24 hours was 2.53 ins. on the 18th with 6 rainy days.

J. F. BRENNAN,  
Government Meteorologist.

Kingston, August 20th, 1933.

No. 680.



JAMAICA

# WEATHER REPORT.

FOR THE MONTH OF

AUGUST, 1933.

The Bar. pressure at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32°, gravity at Lat. 45° and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screen; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small four-cup instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds cumulus and the Upper clouds, cirrus and cirro-stratus.

The rainfall is measured at 7 a.m., and entered as having fallen on the previous day.

The 7th Meridian Time West of Greenwich adopted from 1st February, 1912.

## METEOROLOGICAL RESULTS.

STATIONS.	Elevation.	Bar. Pressure		Temperature.				Extreme Temperature.					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Date.	Min.	Date.	Range.
	ft.	ins.	ins.	°	°	°	°	°	°		°		°
Morant Point Light House	8	29.930	29.907	81.1	84.5	86.4	76.7	9.7	88.2	29	70.1	31	18.1
Kingston	24	29.903	29.878	76.7	83.9	87.9	73.2	14.7	90.8	12	69.7	17	21.1
Negril Point Light House	33	29.909	29.892	77.4	83.8	87.5	73.1	14.4	89.9	3	70.5	8	19.4
Castleton Gardens	496			70.2	79.5	85.6	69.2	16.4	90.0	2	67.0	11*	23.0
Hope Gardens†	668	29.924	29.869	74.2	82.4	86.1	69.9	16.2	90.0	3*	68.0	17*	22.0
Boon Hall	970												
Hill Gardens	4,900	25.254	25.228	63.8	66.2	69.5	57.9	11.6	73.0	14	57.0	15*	16.0

STATIONS.	Elevation.	Dewpoint and Humidity.					Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.					7 a.m.		3 p.m.		7 a.m.			3 p.m.		
	ft.	°	%	°	%	ins.	Mls.		m.		m.	L.	M.	U.	L.	M.	U.	
Morant Point Light House	8	76	85	76	78	13.53	235	E	8.0	E	10.0	2.0	2.1	2.8	1.5	2.6	3.1	
Kingston	24	72	84	74	74	13.50	166	ENE	4.6	SE	12.6	2.3	0.5	2.5	4.7	1.8	3.0	
Negril Point Light House	33	73	87	76	78	11.94	192	ENE	7.9	SE	10.5	0.3	0.0	8.1	2.6	6.2	0.5	
Castleton Gardens	496	69	95	75	87	46.35	..	..	..	..	..	..	..	..	..	..	..	
Hope Gardens	668	69	84	73	73	18.61	..	..	..	..	..	..	..	..	..	..	..	
Boon Hall	970						..	..	..	..	..	..	..	..	..	..	..	
Hill Gardens	4,900	62	90	62	87	14.50	..	..	..	..	..	..	..	..	..	..	..	

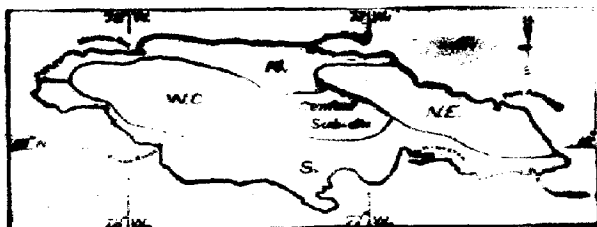
\*And on other days. † Hope Gardens Bar. read at 9 a.m. and 3 p.m.

## THE RAINFALL.

The first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1919." In obtaining the mean Rainfall for the month only those stations are considered for which the average Rainfall has been also given in the last column so that the results derived from these two columns are comparable for each Division. These results are given in the comparative table at the end of this Rainfall Return so as to arrive at the mean for the whole Island, embracing the four Divisions.

The Northern Division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-divisions; the Southern Division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central Divisions are the remaining parts of the Island bounded by the sea and the other Divisions.

A Map showing these Rainfall Divisions is published in Mr. Maxwell Hall's "Rainfall of Jamaica," following page 27, 1911 Edition, and of page 20 of 1923 Edition, an outline of which is



August, 1933.

STATIONS.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
NORTH-EASTERN DIVISION. (N.E.)					
Manchioneal	19.09	8.30	15	24	7.09
Priestman's River	15.10	8.00	15	9	8.00
Bath	21.05	10.60	15	20	9.98
Barrett's Gap	23.56	10.55	15	22	
Millbank	23.58	10.87*	15	15	
Moore Town	20.18	9.00	15	16	15.77
Port Antonio	15.48	7.70	15	22	11.62
Passley Garden	14.27	5.96	15	17	
Fellowship	17.23	7.55	15	19	14.25
Johnson River Br.	19.85	10.40	15	14	10.01
Trinity Ville	21.25	11.50	15	16	
Shrewsbury	26.88	16.04	15	20	9.08
Hope Bay	15.28	10.87	15	19	
Cedar Valley	24.91	11.20	15	22	9.23
Moy Hall	20.54	8.90	15	20	10.44
Paradise	16.48	9.85	15	16	
Lennox	16.09	10.98	15	9	
Greenvale	20.89	7.85	15	20	5.80
Spring Garden	12.07	8.70	15	8	6.52
Hill Gardens	14.50	7.00	15	16	7.80
Buff Bay	13.25	8.97	15	16	5.87
Orange Vale	15.29	7.50	15	15	
Belvedere, Portland	13.73	7.12	15	9	5.35
Windsor Castle, do.	11.30	8.50	15	7	5.49
Balcarras	18.86	8.40	15	16	
Mt. Holstein	24.87	9.32	15	18	7.02
Cedar Hurst	21.25	10.80	15	22	
Hardware Gap	21.84	12.22	15	22	7.22
Rose Hill	19.68	3.20	15	20	9.92
Hermitage	28.53	10.22	15	27	
Mount James	30.10	9.15	15	23	
Stony Hill Ind. Sch.	23.77	5.67	15	18	8.86
Boon Hall	28.97	11.85	15	22	
Brandon Hill	26.86	8.75	15	17	
NORTHERN DIVISION (N).					
Guy's Hill	22.98	11.00	15	19	4.13
Lucky Hill	21.76	9.77	15	16	4.66
Rio Hoe	24.28	12.00*	15	18	5.86
Unity Valley	18.73	9.06	15	20	6.60
Moneague	18.15	9.06	15	20	6.69
Claremont	14.96	6.25	15	15	5.08
Averham Park	17.31	6.06	15	21	4.59
Albion	14.02	2.43	15	20	6.01
Port Maria					
Wentworth	11.83	7.65	15	13	4.94
Eden Park	9.81	6.40	15	13	
Oracabessa	10.80	10.00	15	5	
Huddersfield	14.56	9.00	15	15	
Ocho Rios	14.54	9.00	15	7	
Bogue, Ocho Rios	10.72	6.50	15	11	2.99
Drax Hall	15.33	8.75	15	9	4.13
Rockfield	14.69	8.05	15	13	3.54
Liberty Hill	16.79	5.80	15	12	4.30
St. Ann's Bay	11.01	4.90	15	10	3.19
Seville	15.13	7.15	15	13	3.07
Richmond Estate					3.48
Llandovery	11.73	5.85	15	12	3.04
Runaway Bay	7.61	3.60	15	11	1.88
Knapdale	16.82	4.50	15	18	
Alexandria	7.08	4.00	15	14	3.86
Bel-Air	10.95	4.30	15	13	
Brown's Town	19.11	4.10	15	23	3.96
Watt Town, St. Ann	7.15	2.24	15	10	4.58
Home Castle	10.60	2.50	15	13	3.43
Richmond Pen					5.03
Arcadia					3.27
Vale Royal	9.53	1.53	1	19	4.58
Harmony Hall					2.35
Duncans	8.14	2.30	15	13	
Clark's Town					
Falmouth	5.44	2.07	15	12	2.45
The Hague	5.85	1.95	15	14	
Wales	13.85	2.55	11	14	
Canaan					5.50

\* Gauge overflowed.

August, 1933.						August, 1933.					
STATIONS.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.	STATIONS.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
NORTHERN DIVISION, contd.						WEST-CENTRAL DIVISION, contd.					
Grange	6.01	1.13	15	15	..	Mandeville	21.59	5.11	15	22	8.53
Adelphi	6.43	1.80	11	12	2.11	Ulster Spring	17.13	3.00	18	19	8.54
Success	6.42	2.00	11	12	2.06	Marshall's Pen	15.62	5.04	15	11	..
Rose Hall	5.64	1.15	11	12	2.19	Greenvale	12.08	3.33	15	20	..
Cinnamon Hill	5.15	1.30	23	10	5.04	Albert Town	11.01	2.40	7	16	9.25
Tryall	5.45	0.85	11	12	2.43	Craig Head	11.20	3.30	15	11	..
Running Gut	5.40	1.10	23	11	2.44	Warsop	12.68	2.95	24	12	..
Spring Estate	13.05	2.81	19	18	5.63	Troy	13.70	2.58	28	16	10.09
Friendship	14.03	3.00	19	20	6.11	Wallingford	15.14	3.69	22	18	10.33
Retirement	8.21	1.95	19	15	..	Balaclava	11.36	2.06	21	16	7.97
Rose Mount	9.86	2.21	19	15	5.12	Wakefield	9.26	1.48	28	18	..
Montego Bay	11.82	2.08	11	22	6.55	Maggotty	14.84	2.25	15	16	11.21
Anchovy	10.40	2.50	28	13	..	Lacovia	11.05	1.56	15	14	..
Bamboo-Hanover	9.48	2.26	19	14	7.20	Ipswich	9.53	1.50	19	20	7.87
Blue Hole	11.20	1.35	11	23	7.82	Kempshot	17.22	1.88	21	23	..
Kew	8.72	1.10	18	23	6.29	Garlands	16.11	1.49	22	25	..
Lucea	7.48	2.24	11	12	6.65	Mcho, St. James	19.76	3.72	19	22	..
Haughton Court	12.39	3.18	11	23	..	Bandon Pen	18.88	3.00	18	25	13.41
Cousins Cove	13.83	2.00	11	25	9.48	Catadupa	16.62	1.90	20	27	11.05
Green Island	12.40	2.39	20	25	..	Cambridge, St. James	10.13	1.95	13	16	13.12
Haughton Hall						New Market	14.02	2.30	4	22	12.12
CENTRAL SUB-DIVISION.						Montpelier					
Knollis	17.74	12.06	15	16	..	The Bog	13.89	2.08	19	16	6.80
Highgate	16.81	10.61	15	21	..	Bethel Town Dist.	10.45	1.35	14	21	13.91
Rio Magno	20.88	10.35	15	20	..	Burnt Ground	15.64	2.26	21	24	14.10
Riversdale	19.73	10.00	15	16	..	Haughton Grove	17.12	3.21	27	24	11.09
Headworks, R.C.C.	18.22	12.74	15	9	5.55	Darliston	15.24	1.95	18	21	11.30
Bog Walk	21.68	17.51	15	18	..	Bluefields	17.18	3.26	4	23	15.00
Linstead	18.52	12.41	15	21	8.62	Whithorn	8.35	1.43	4	28	11.75
Ewarton	16.24	10.50	15	11	..	Water Works Pen	16.33	2.04	4	23	11.74
Cave Valley	11.29	2.23	15	20	7.42	Askenish	11.20	2.35	4	20	12.72
Guanaboa Vale	20.37	12.00	15	11	..	Grange Hill	18.20	3.05	10	18	12.78
Point Hill	27.47	11.43	15	21	10.25	King's Vale	14.20	2.60	21	23	13.06
Brown's Hall	20.77	10.90	15	14	7.88		10.12	1.95	1	22	10.61
Bellas Gate	26.07	12.76	15	14	5.95	SOUTHERN DIVISION (S.)					
Rock River	14.09	8.00	15	11	..	Morant Point L.H.	13.53	6.81	15	18	5.05
Crofts Hill	17.79	8.70	15	12	7.71	Golden Grove	13.70	8.35	15	21	..
Far Enough	16.53	6.45	15	20	..	Pleasant Hill	12.29	4.81	15	22	6.87
Suttons	16.92	7.75	15	18	..	East Prospect	19.15	11.90	15	19	6.69
Colonel's Ridge	15.90	8.00	15	12	..	Morant Bay	17.79	11.70	15	24	6.43
Chapelton	15.01	8.05	15	13	6.31	Aeolus Valley	20.68	12.50	15	19	..
Crooked River	11.26	4.18	15	18	..	Yallahs	16.39	10.30	15	13	..
James Hill	15.90	6.00	15	19	..	Easington	..	..	..	..	6.67
Frankfield	16.10	5.72	15	20	7.82	Mavis Bank	17.22	10.97	15	16	..
WEST-CENTRAL DIVISION (W.C.)						Bull Bay	13.08	10.05	15	5	2.54
Mcho, Clarendon	13.13	6.05	15	11	6.79	Dallas Castle	24.70	20.22	15	9	..
Clarendon Park	14.63	6.30	15	18	..	Gordon Town	19.75	12.70	15	16	5.09
Porus	14.96	5.50	15	17	..	Irish Town	20.83	10.00	15	15	5.95
Boro-bridge	14.50	5.25	15	15	..	Hope Gardens	18.61	11.70	15	20	5.81
Spaldings	13.57	4.15	15	15	7.26	Waireka	15.80	10.75*	15	10	..
Williamsfield	20.53	3.53	15	21	..	Ivor	18.45	11.10*	15	12	..
Brokenhurst	17.80	5.18	15	16	8.16	Barbican	14.34	10.56	15	10	3.47
Shooters Hill	18.82	3.50	15	18	7.38	Plumb Point L. H.	..	..	..	..	4.90
Lowe River	..	..	..	..	8.03	King's House Gar.	14.59	12.16	15	14	4.83
Christiana	13.72	3.62	15	20	7.03	Upper Kingston	13.50	11.60	15	11	3.60
Clifton Hill	21.16	4.95	15	13	8.46	Kingston P.W.O.	14.04	10.28	15	16	3.84
Kendal, Manchester	16.82	3.75	15	14	8.13	Halfway Tree	12.87	11.70	15	9	3.91
Mereworth	20.41	5.37	15	21	..	Clifton Pen	19.12	10.73	15	7	..
						Red Hills					

\* Gauge overflowed.

STATIONS.	August, 1933.					STATIONS.	August, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
SOUTHERN DIVISION, <i>contd.</i>	Ins.	Ins.			Ins.	SOUTHERN DIVISION, <i>contd.</i>	Ins.	Ins.			Ins.
Quarantine Station	7.98	4.53	15	10	2.56	Great Valley, Man.	10.12	4.60	15	13	5.54
Hematine	15.70	11.33	15	12	3.66	Alligator Pond	5.93	4.70	15	3	4.13
Spanish Town	14.87	11.40	15	11	3.87	Fairfield	15.44	3.44	15	22	6.16
The Stewartry	15.65	10.50*	15	10		Lititz	6.53	4.55	15	7	5.32
Hog Hole, St. Cath.	13.08	5.00	15	13	4.25	Myersville	6.82	4.12	15	8	
Old Harbour	17.68	12.00	15	12	4.71	Southfield, St. Eliz.	12.16	7.25	15	9	6.29
May Pen	13.94	8.76	15	14	5.26	Munro					
Glen Muir	13.00	8.00	15	4		Windsor, St. Eliz.	8.07	2.57	15	18	
Cottage	10.40	5.51	15	14		Torrington	8.29	4.15	15	8	5.54
Belle Plain	13.09	6.50	15	12		Santa Cruz	12.69	2.48	20	15	9.25
Milk River	6.96	4.65	15	11	4.26	Pedro Plains	7.84	3.90	15	6	2.92
Retrieve	10.90	6.58	15	6	4.06	Mountainside	9.05	4.08	15	7	5.38
Hog Hole, S. Man.	11.20	2.80	15	8	7.17	Fort Charles	5.45	1.59	30	4	
Stone's Hope	12.71	5.61	15	16	6.48	Black River	5.14	1.56	16	16	6.31
Newport, Man.	14.14	5.50	15	20	7.35	Font Hill	5.40	1.00	2	11	6.27
						Mount Edgecombe	6.96	0.96	9	21	8.46
						Sweet River	10.18	2.25	4	20	9.16
						Sav.-la-Mar	8.21	1.72	7	17	7.86
						Little London	8.52	1.65	4	23	6.66
						Retreat	8.03	1.77	4	15	8.42
						Negril Point L.H.	11.94	3.57	1	20	6.50

## NOTES.

## SHOCKS OF EARTHQUAKE IN AUGUST, 1933.

COMPARATIVE TABLE OF RAINFALL  
AND RAINY DAYS.

COMPARATIVE TABLE OF RAINFALL AND RAINY DAYS.					Date.	Standard Time (Approx.)	Intensity.	Notes: where, etc.
DIVISIONAL  AND  ISLAND RAINFALL.	August.						None	Reported.
	Rainfall.		Rainy Days.					
	1932.	Ave.	1932.	Ave.				
	Ins.	Ins.						
North-Eastern	18.98	7.41	17	11				
Northern	12.14	4.89	15	9				
West-Central	14.72	10.17	19	15				
Southern	12.10	5.26	13	10				
The Island means	14.49	6.93	16	11				

N.B. IT IS PARTICULARLY REQUESTED TO SEND ALL RAINFALL POSTCARDS IN NOT LATER THAN THE 6TH OF EACH MONTH.

\* Gauge overflowed.



## THE ISLAND—AUGUST.

The mean rainfall for the Island was very much above the average in all Divisions and was the highest recorded in August for the past 63 years.

There were very heavy flood rains on the night of the 15th-16th, which caused serious damage to roads and private property and loss of life, especially in Kingston, St. Andrew and St. Catherine. These flood rains fell in all the eastern and central parishes as far west as Manchester and St. Ann and parts of Trelawny and St. Elizabeth, but the western parishes were not affected. Altogether 165 Stations reported heavy rainfall on that date.

It may be further stated that the distribution of the flood rains during the night of the 15th-16th August, so far as the four rainfall divisions are concerned, is as follows:

The North-eastern Division had a mean of 9.20 ins., derived from 57 stations. The Northern Division had a mean of 7.30 ins., derived from 45 stations. The West-central Division had a mean of only 4.50 ins., derived from 18 stations. Then, the Southern Division shewed a mean of 8.90 ins., from 46 stations. But if the Southern Division be divided into two sections, it will be found that the eastern half, from Morant Point Light House to the region of the Red Hills in St. Andrew, gave 11.00 ins. where the greatest falls occurred, and the western half from the Red Hills to Negril Point Light House, shewed 6.80 ins.

The greatest total fall for the month was 46.35 inches at Castleton in the North-eastern Division and the heaviest fall in 24 hours was 20.22 inches at Dallas Castle in the same Division on the 15th.

The mean number of rainy days was 16 the average for the month being 11. The greatest number was 27 at Hermitage in the North-eastern Division and Cambridge in the West-central Division.

The mean rainfall in each parish is given below:—

	Inches.		Inches.
Kingston .. ..	14.14	St. James .. ..	11.03
St. Andrew .. ..	21.09	Hanover .. ..	12.40
St. Thomas .. ..	18.82	Westmoreland ..	11.42
Portland .. ..	17.56	St. Elizabeth ..	8.99
St. Mary .. ..	16.07	Manchester .. ..	15.22
St. Ann .. ..	13.97	Clarendon .. ..	13.62
Trelawny .. ..	10.66	St. Catherine ..	19.16

## CITY OF KINGSTON.

The total rainfall for August was 13.50 inches, which is considerably in excess of the 60-year normal of 3.60 ins. owing to phenomenal flood rains occurring on 15th and 16th. There were 11 rainy days, as compared with the 49-year average of 9. The upper boundary of Kingston gauged 14.59 ins. with 14 rainy days. Loss of life of about 50 persons occurred from drowning, owing to the overflow of gullies. Great destruction of house property, along the edges of the gullies, was sustained. The total rainfall for the month was slightly exceeded in the year 1879 with 13.83 ins. Distant rain was observed to northward on 16 days, to N.E. on 3, to east on 4 and to N.W. on one day.

The mean barometric pressure was 29.902 ins. and the 33-year normal 29.929 ins., shewing 0.027 inch under the normal. Highest barometer reading 29.981 ins. on 13th at 3 p.m., and lowest 29.772 ins. on 22nd at 10 p.m. (correc. for diur. var.). With the exception of March, the pressure this year has, consistently, been below the 33-year normal.

At the time of the Weather Disturbance, in its position to the south of Jamaica on the night of the 15th, the barometer read at 11 p.m. 29.843 ins., and at 1 a.m. on 16th, 29.896 ins., (correc. for diur. var.), shewing that the centre of the disturbance was nearest to Kingston just before midnight. But the pressure did not fall more than 0.086 inch below the normal, of 29.929 ins., on the 15th.

Mean monthly temperature, based upon four observations per day was 79.9 degs., and the 33-year normal 81.0 degs., giving 1.1 deg. below the normal. Highest maximum temperature 90.8 degs. on 12th, and the lowest minimum 69.7 degs. on 17th. Then the lowest maximum was 80.4 degs. on 15th (a rainy day). The highest minimum 76.1 degs. on 3rd. Greatest range of temperature 17.0 degs. on 12th and 18th, and least 7.6 degs. on 15th (a rainy day). Maximum was above 90 degs. on four days, all during the earlier part of the month, and the minimum below 70 degs. once.

The mean daily miles of wind registered was 166, as against the 20-year normal of 196. The greatest number of miles of wind in one day was 444 on 16th, and the least 89 on 22nd. At the time of the flood rains on 16th there was a gust of wind at 36 miles per hour, of a duration of a few minutes, at about 1 a.m. South-easterly wind commenced early on 3 occasions and continued after 7 p.m. on 7 occasions. South-east rainsqualls on 2nd, 3rd and 16th.

At midnight of the 15th, when the disturbance was about due south, the south-easterly wind velocity at midnight to 1 a.m. on 16th indicated by the automatic register 22 miles per hour, then from 1 a.m. to 2 a.m. 24 miles per hour, and from 2 to 5 a.m., uniformly 30 miles per hour. Then the wind decreased in velocity to 23 miles per hour to about 6 a.m. on 16th.

The mean relative humidity was 83%, and the 33-year normal 79%, or 4% in excess owing to abnormal rainfall. The mean 7 a.m. was 84% and mean 3 p.m. 74%. The lowest 7 a.m. 74% on 3rd and 11th, and the lowest 3 p.m. 51% on 3rd.

The sky was overcast in the early morning on 15 occasions, and in the afternoon on 23 occasions.

Distant lightning, at night, on frequent occasions. Distant thunderstorm to north on 14 days, to east on 2 days and to NW on one day. Moderate local thunderstorm on 1st, 20th and 21st. Sharp thunderstorm on 22nd. Intense local thunderstorm, lasting for about 5½ hours, on the night of 15th-16th.

The total evaporation for the month was 5.60 ins., as compared with the 10-year normal of 7.56 ins. The exceptionally heavy rainfall, evidently tended to reduce the amount of evaporation.

Mean daily number of sunshine hours 6.9.

## CAYMAN ISLANDS

Government House, Georgetown, Grand Cayman.—For the month of August, 1933, the total rainfall was 4.80 ins. The greatest fall in 24 hours was 1.27 on 7th, with 8 rainy days.

## WEATHER DISTURBANCES, AUGUST.

There were five hurricanes and weather disturbances within barometric range of Jamaica during the month of August, 1933.

1. In the afternoon of 15th August a Weather Disturbance of slight to moderate intensity apparently developed to the SSE of Jamaica, and at about midnight it was located about 200 miles to the southward of Kingston. It moved in a west-north-westward direction towards the western end of Cuba on 18th, then it continued on its track towards the north-westward, until it passed to the north-west of Key West (U.S.A.) on 19th and finally along the western coast of southern Florida. Great flood rains were experienced in Jamaica, on the night of the 15th-16th, particularly in the parishes of Kingston and St. Andrew, as well as in adjoining parishes. From the inundation of the water courses, gullies, etc., in Kingston and St. Andrew, over fifty persons perished by drowning. There was, also considerable damage occurring to property, owing to the very exceptional flooding of water courses; numerous small habitations were swept away.

2. A Weather Disturbance developed to the north of the Island of Trinidad on 17th August, and then moved in a west-north-westward direction, passing to the south of Jamaica on 20th, and then continued further to WNW until the 21st, when it was no longer identified. Flood rains were reported from Trinidad.

3. A Weather Disturbance was reported on 17th August, as developing in Lat. 18° North, and Long. 50° West, of considerable intensity. It proceeded on its track somewhat west-north-westerly until the 19th, then north-westerly to the 22nd Aug. when, finally, it arrived along the eastern coast of the United States, near to Cape Hatteras on 22nd, occasioning immense loss of property and some lives. The ocean liner "Mauretania" passed through this hurricane on her voyage to the Island of Trinidad. Other Liners at sea experienced the effects of this storm.

4. A Tropical Disturbance was located some distance to the north of Porto Rico on 26th. It kept in a NW direction towards the Florida Coast of U.S.A., causing some damage.

5. A Tropical Disturbance was located about 200 miles to the east-north-east of Porto Rico on 29th August, of considerable intensity. This storm moved in a WNW direction, coursing along and near the northern coast of Cuba, increasing to hurricane force near to Havana on 1st September. Then, it continued in the same direction into the Gulf of Mexico, causing loss of life and property along its track over the north coast of Cuba.

J. F. BRENNAN,  
Government Meteorologist.

Kingston,  
September 22nd, 1933.

No. 681.



JAMAICA

# WEATHER REPORT.

FOR THE MONTH OF

SEPTEMBER, 1933.

The Bar. pressure at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32°, gravity at Lat. 45° and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screen; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small four-cup instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds cumulus and the Upper clouds, cirrus and cirro-stratus.

The rainfall is measured at 7 a.m., and entered as having fallen on the previous day.

The 7th Meridian Time West of Greenwich adopted from 1st February, 1912.

## METEOROLOGICAL RESULTS.

STATIONS.	Elevation.	Bar. Pressure		Temperature.				Extreme Temperature.					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Date.	Min.	Date.	Range.
	ft.	ins.	ins.	°	°	°	°	°	°		°		°
Morant Point Light House	8	29.897	29.867	81.2	82.8	85.4	76.3	9.1	88.1	25	72.0	17	16.1
Kingston	24	29.868	29.837	75.0	83.1	86.2	72.4	13.8	90.9	5	69.1	18	21.8
Negril Point Light House	33	29.868	29.844	77.0	82.3	86.5	73.2	13.3	89.6	3*	70.6	29*	19.0
Castleton Gardens	496			69.9	79.2	84.5	68.9	15.6	92.0	3	67.0	5*	25.0
Hope Gardens†	668	29.907	29.845	73.2	81.2	85.7	68.9	16.8	92.0	5	67.0	11*	25.0
Boon Hall	970												
Hill Gardens	4,900	25.241	25.218	63.1	65.2	69.2	58.2	11.0	71.0	1*	56.0	30	15.0

STATIONS.	Elevation.	Dewpoint and Humidity.				Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.				7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		ft.	°	%	°			%	ins.	Mls.		m.		m.	L.	M.	U.
Morant Point Light House	8	75	82	76	79	8.02	233	ENE	10.0	E	9.0	2.0	2.3	2.1	1.8	3.3	2.7
Kingston	24	71	89	74	76	8.98	176	NE	5.2	SE	11.0	2.8	0.8	2.7	4.5	1.3	3.2
Negril Point Light House	33	72	83	74	77	8.83	228	E	8.5	SE	11.9	3.0	0.4	4.6	4.0	4.2	1.6
Castleton Gardens	496	69	95	75	89	25.88	..	..	..	..	..	..	..	..	..	..	..
Hope Gardens	668	68	86	72	75	13.14	..	..	..	..	..	..	..	..	..	..	..
Boon Hall	970	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hill Gardens	4,900	60	88	63	90	11.29	..	..	..	..	..	..	..	..	..	..	..

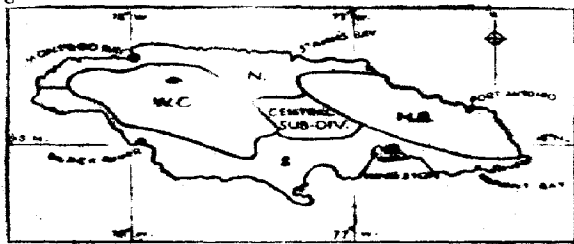
\*And on other days. † Hope Gardens Bar. read at 9 a.m. and 3 p.m.

## THE RAINFALL.

The first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1919." In obtaining the mean Rainfall for the month only those stations are considered for which the average Rainfall has been also given in the last column so that the results derived from these two columns are comparable for each Division. These results are given in the comparative table at the end of this Rainfall Return so as to arrive at the mean for the whole Island, embracing the four Divisions.

The Northern Division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-divisions; the Southern Division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central Divisions are the remaining parts of the Island bounded by the sea and the other Divisions.

A Map showing these Rainfall Divisions is published in Mr. Maxwell Hall's "Rainfall of Jamaica," following page 27, 1911 Edition, and of page 20 of 1923 Edition, an outline of which is given below.



September, 1933.

STATIONS.	September, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
NORTH-EASTERN DIVISION. (N.E.)					
Manchioneal	Ins. 13.59	Ins. 2.60	14	17	9.68
Priestman's River	17.50	3.00	14	14	10.33
Bath	19.91	2.55	14	18	12.17
Barrett's Cap	20.79	3.90	14	20	
Millbank	24.68	4.39	14	19	
Moore Town	23.66	3.40	16	19	14.81
Port Antonio	16.32	4.25	16	15	10.38
Passley Garden	14.43	3.96	16	13	
Fellowship	17.74	6.00	17	12	12.57
Johnson River Br.	18.28	2.95	7	19	10.94
Trinity Ville	20.69	3.73	7	17	
Shrewsbury	12.07	2.64	17	15	9.44
Hope Bay	9.82	2.44	17	14	
Cedar Valley	17.70	3.85	16	15	12.17
Moy Hall	16.95	2.80	16	21	11.42
Paradise	8.91	1.76	17	13	
Lennox	10.66	2.44	17	15	
Greenvale	11.37	1.90	27	22	8.51
Spring Garden	7.79	1.30	27	11	8.57
Hill Gardens	11.29	1.20	19	19	9.42
Buff Bay	7.96	1.41	16	11	5.07
Orange Vale	7.27	1.25	27	12	
Belvedere, Portland	6.13	2.02	27	7	1.19
Windsor Castle, do.	6.66	1.09	16	10	5.48
Balcarres	10.36	1.60	14	19	
Mt. Holstein	12.50	2.09	24	20	10.13
Cedar Hurst	9.84	1.69	28	22	
Hardware Gap	17.08	4.03	30	14	10.70
Rose Hill	17.20	2.07	8	20	13.48
Hermitage	13.32	1.65	18	24	
Mount James	19.02	4.20	28	21	
Stony Hill Ind. Sch.	12.38	2.31	28	21	10.05
Boon Hall	15.18	2.18	28	22	

September, 1933.

STATIONS.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.		
NORTH-EASTERN					
DIVISION, <i>contd.</i>	Ins.	Ins.			Ins.
Brandon Hill	13.36	2.55	28	17	
Iter Boreale					
Enfield	7.29	1.25	16	17	
Agualta Vale	8.48	2.32	16	17	4.94
Castleton Gardens	25.88	6.50	25	24	11.76
Water Valley	6.61	2.57	16	14	4.82
Albany	10.46	2.02	16	15	4.18
Lawrence Tavern	11.73	1.55	16	18	9.87
Richmond, St. Mary	5.82	1.84	27	15	6.11
Quebec, St. Mary	10.25	2.51	27	16	4.45
Above Rocks	10.03	2.22	30	15	
Glengoffe	11.69	2.45	25	12	
Carew Castle	10.95	2.88	30	12	11.19
Hampstead, St. Mary	11.50	2.75	27	19	6.24
Windsor Castle do.	6.01	1.32	19	13	
Troja	8.90	1.60	28	16	
Pear Tree Grove	8.55	1.35	13	13	
Guy's Hill	6.97	1.53	5	13	7.37
Lucky Hill	5.04	0.97	19	12	6.14
Rio Hoe	9.62	1.57	5	15	6.36
Unity Valley	11.06	1.99	28	19	8.17
Moneague	9.74	1.15	5	17	7.55
Claremont	7.36	1.75	25	14	6.38
Averham Park	9.18	2.16	27	22	5.60
Albion	10.03	1.32	23	19	7.48
NORTHERN					
DIVISION (N).					
Port Maria	9.85	2.10	27	17	4.13
Wentworth	9.04	2.34	27	15	
Eden Park	10.65	3.75	27	12	
Oracabessa	15.01	4.40	27	18	
Huddersfield	5.24	1.55	29	5	
Ocho Rios	4.60	1.90	8	9	3.64
Bogue, Ocho Rios	5.15	1.85	8	9	4.51
Drax Hall	4.63	1.45	8	8	3.79
Rockfield	7.24	1.80	27	10	5.21
Liberty Hill	3.71	0.95	27	8	3.90
St. Ann's Bay	4.91	2.00	27	9	3.51
Seville	4.95	2.64	27	5	3.59
Richmond Estate	5.90	1.73	27	7	3.74
Llandoverly					3.69
Runaway Bay	1.98	0.91	8	6	2.61
Knapdale	7.07	1.49	27	13	
Alexandria	6.70	2.30	29	14	7.12
Bel-Air	4.55	1.75	8	10	
Brown's Town	6.42	1.07	27	19	5.71
Watt Town, St. Ann	3.80	0.45	15	12	6.89
Home Castle	8.80	3.35	22	8	5.18
Richmond Pen	5.40	1.50	1	11	6.19
Arcadia					4.71
Vale Royal	2.70	1.05	22	12	4.72
Harmony Hall	3.84	0.80	25	12	3.63
Duncans	3.92	0.90	27	8	
Clark's Town	8.39	2.58	22	13	
Falmouth	3.22	0.88	22	8	3.41
The Hague	3.61	1.33	22	8	
Wales	4.70	1.55	21	13	
Canaan					7.62

STATIONS.	September, 1933.					STATIONS.	September, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
NORTHERN DIVISION, contd.						WEST-CENTRAL DIVISION, contd.					
Grange	Ins.	Ins.			Ins.	Mandeville	Ins.	Ins.			Ins.
Adelphi	7.41	1.91	22	16		Ulster Spring	25.42	6.00	21	19	10.05
Success	6.04	1.50	17	12	3.55	Marshall's Pen	10.32	1.60	28	18	10.17
Rose Hall	5.86	1.50	17	12	3.46	Greenvale	22.56	5.50	20	14	8.90
Cinnamon Hill	6.97	1.80	17	15	3.89	Albert Town	10.00	3.13	21	19	
Tryall	5.25	1.15	17	14	5.12	Craig Head	8.32	1.63	26	16	10.87
Running Gut	5.48	1.55	17	12	3.68	Warsop	8.83	1.68	27	11	
Spring Estate	4.85	1.20	17	13	3.58	Wakefield	8.78	2.03	29	11	
Friendship	8.90	0.85	28	25	8.34	Troy	11.95	2.81	17	13	13.70
Retirement	11.04	1.37	14	24	9.37	Wallingford	12.81	2.82	28	21	12.37
Rose Mount	5.28	1.60	2	21		Balaclava	9.59	1.64	28	16	11.00
Montego Bay	6.54	1.74	2	21	6.58	Wakefield	10.41	2.05	7	19	
Anchovy	12.85	2.56	23	23	6.98	Maggotty	14.71	1.80	28	19	11.82
Bamboo-Hanover	3.87	0.60	23	14		Lacovia	10.62	1.80	7	13	
Blue Hole	8.67	1.67	22	19	10.09	Ipswich					
Kew	10.70	1.90	2	21	8.64	Kempshot	11.60	2.57	14	24	9.10
Lucea	9.34	1.27	16	27	8.16	Garlands					
Haughton Court	7.11	1.50	16	12	7.16	Moch, St. James	20.27	2.50	29	22	
Cousins Cove	6.19	0.99	9	20		Bandon Pen	20.25	3.65	25	22	
Green Island	10.00	2.45	8	24	10.37	Catadupa	23.92	3.94	28	22	14.69
Haughton Hall	10.77	2.47	8	23		Cambridge, St. James	18.16	2.75	14	23	12.29
CENTRAL SUB-DIVISION.						New Market	15.25	3.36	29	12	11.81
Knollis	8.21	1.62	29	15		Kew Park	15.79	2.07	28	22	12.38
Highgate	8.47	1.40	29	18		Montpelier	15.83	1.75	26	18	7.21
Rio Magno	11.48	1.45	5	16		The Bog	16.56	3.54	29	20	12.72
Riversdale	11.93	1.90	7	17		Bethel Town Dist.	15.62	1.68	26	25	15.76
Headworks, R.C.C.	8.37	1.82	23	15	6.24	Burnt Ground	16.41	5.36	28	23	13.30
Bog Walk	9.80	1.40	19	12		Haughton Grove					12.38
Linstead	11.58	1.42	7	21	7.48	Darliston	13.91	1.52	28	22	14.56
Ewarton	10.42	1.87	7	23		Bluefields	12.24	2.08	15	20	10.83
Cave Valley	7.78	1.31	27	15	7.87	Whithorn	16.70	2.50	27	21	11.20
Guanaboa Vale	6.22	1.20	16	15		Water Works Pen	12.45	2.23	27	20	11.01
Point Hill	19.13	2.17	19	23	10.89	Askenish	12.75	2.35	30	15	12.07
Brown's Hall	11.56	2.10	30	17	9.81	Grange Hill	21.32	3.78	27	20	11.75
Bellas Gate	11.66	2.46	2	16	5.71	King's Vale	7.72	1.30	30	20	10.85
Rock River	7.68	1.70	21	15		SOUTHERN DIVISION (S.)					
Crofts Hill	15.16	3.25	21	13	7.67	Morant Point L.H.	8.02	1.62	19	20	6.94
Far Enough	12.05	2.09	29	18		Golden Grove	10.14	1.49	19	22	
Suttons	10.20	1.55	28	17		Pleasant Hill	11.47	1.84	16	22	8.44
Colonel's Ridge	11.12	2.29	28	15		East Prospect	15.42	2.35	7	20	8.37
Chapelton	11.63	1.50	21	18	7.86	Morant Bay	14.69	2.36	7	21	8.0
Crooked River	9.40	1.67	1	19		Aeolus Valley	19.33	2.90	7	22	
James Hill	11.03	1.52	21	16		Yallahs	15.27	2.00	7	18	
Frankfield	10.17	1.86	29	18	7.17	Easington	15.79	3.04	7	17	8.18
WEST-CENTRAL DIVISION (W.C.)						Mavis Bank	9.47	2.28	16	18	
Moch, Clarendon	21.05	3.62	21	19	9.10	Bull Bay	7.82	2.02	18	10	4.10
Clarendon Park	13.59	2.76	21	18		Dallas Castle	20.48	5.04	16	19	
Porus	19.52	3.17	7	18		Gordon Town	13.92	2.18	16	22	7.84
Borobridge	10.43	1.80	29	13		Irish Town	13.77	1.75	17	20	8.35
Spaldings	9.53	1.60	7	16	7.97	Hope Gardens	13.14	2.08	16	21	6.94
Williamsfield	18.18	2.81	7	19		Waireka	33.31	4.50	16	26	
Brokenhurst	25.91	3.05	21	21	9.91	Ivor					
Shooters Hill	16.65	2.40	21	16	9.14	Barbican	10.34	2.05	16	15	
Lowe River	7.70	1.20	8	12	11.11	Plumb Point L. H.	7.84	2.60	16	14	4.30
Christiana	8.92	1.80	7	19	9.17	King's House Gar.	9.41	2.10	16	16	5.32
Clifton Hill	30.74	8.75	16	14	11.43	Upper Kingston	11.12	2.20	10	16	4.33
Kendal, Manchester	15.99	2.40	21	18	9.60	Kingston P.W.O.	8.98	2.43	16	14	3.87
Mereworth	29.33	5.05	21	22		Halfway Tree	10.17	2.39	16	16	4.72
						Clifton Pen	12.44	3.34	10	16	4.24
						Red Hills	8.03	1.21	19	11	

STATIONS.	September, 1933.					STATIONS.	September, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
SOUTHERN DIVISION, contd.						SOUTHERN DIVISION, contd.					
Quarantine Station	Ins. 8.72	Ins. 2.37	17	15	Ins. 2.98	Great Valley, Man.	Ins. 23.16	Ins. 5.01	15	17	Ins. 6.60
Hematine	6.42	1.73	16	16	4.89	Alligator Pond	16.94	4.27	15	9	5.48
Spanish Town	4.48	0.87	19	10	4.94	Fairfield	15.67	3.00	21	23	7.94
The Stewartry	6.10	1.74	16	12		Lititz	10.32	2.90	15	6	5.58
Hog Hole, St. Cath.	7.25	2.03	16	15	5.69	Myersville	12.18	2.69	15	12	
Old Harbour	12.01	2.12	16	14	6.01	Southfield, St. Eliz.	19.67	3.11	20	18	7.80
May Pen	10.55	2.01	16	16	7.04	Munro					
Glen Muir	12.10	4.00	16	10		Windsor, St. Eliz.	11.60	2.85	7	16	
Cottage	17.64	3.97	8	21		Torrington	11.98	2.70	21	10	6.49
Belle Plain	14.61	3.56	21	19		Santa Cruz	10.69	1.94	21	13	9.66
Milk River	13.89	2.88	8	15	7.27	Pedro Flains	10.92	2.20	21	14	4.07
Retrieve	13.54	1.90	7	12	7.42	Mountainside	7.71	2.93	7	6	4.66
Hog Hole, S. Man.	19.89	4.50	15	14	9.45	Fort Charles	8.54	1.59	21	9	
Stone's Hope	24.68	5.92	15	16	8.67	Black River	7.13	2.10	7	15	5.43
Newport, Man.	19.54	4.20	15	24	8.20	Font Hill	10.75	1.90	7	13	6.66
						Mount Edgecombe	9.91	1.73	30	17	8.25
						Sweet River	11.67	2.34	15	21	8.11
						Sav.-la-Mar	10.67	1.98	29	16	7.08
						Little London	10.65	1.83	29	18	9.25
						Retreat	9.50	1.74	15	15	7.72
						Negril Point L.H.	8.83	2.27	28	19	6.71

## NOTES.

## SHOCKS OF EARTHQUAKE IN SEPTEMBER, 1933.

COMPARATIVE TABLE OF RAINFALL AND RAINY DAYS.					Date.	Standard Time (Approx.)	Intensity.	Notes: where, etc.
DIVISIONAL	September.				7th	12. 26 p.m.	I	Kingston
AND	Rainfall.		Rainy Days.					
ISLAND RAINFALL.	1933.	Ave.	1933.	Ave.				
	Ins.	Ins.						
North-Eastern	12. 29	8. 48	16	13				
Northern	7. 63	5. 89	15	10				
West-Central	15. 58	10. 99	18	16				
Southern	12. 12	6. 42	16	11				
The Island means	11. 91	7. 94	16	13				

N.B. IT IS PARTICULARLY REQUESTED TO SEND ALL RAINFALL POSTCARDS IN NOT LATER THAN THE 6TH OF EACH MONTH.

## THE ISLAND—SEPTEMBER.

The mean rainfall for the Island was, for the fourth month in succession, much above the average in all Divisions.

While similar floods to those of the previous two months were not experienced, fairly heavy and continuous rains fell all over the Island. The greatest total fall for the month was 33.31 inches at Waireka in the Southern Division and the heaviest fall in 24 hours was 8.75 inches at Clifton Hill in the West-Central Division on the 16th.

The heaviest precipitation occurred in the latter half of the month, particularly on the 16th and 27th, but generally the rainfall was well distributed, the mean number of rainy days being 16 as compared with the average of 13. Houghton Court, in the Northern Division, had most rainy days, 27, and many other stations had over 20.

There was a sharp hailstorm at Kempshot on the 5th.

The mean rainfall for each parish is given below:—

	Inches.		Inches.
Kingston .. ..	9.31	St. James .. ..	10.92
St. Andrew .. ..	13.99	Hanover .. ..	9.58
St. Thomas .. ..	16.03	Westmoreland .. ..	12.90
Portland .. ..	12.46	St. Elizabeth .. ..	11.78
St. Mary .. ..	9.81	Manchester .. ..	19.81
St. Ann .. ..	6.76	Clarendon .. ..	12.15
Trelawny .. ..	6.76	St. Catherine .. ..	9.64

The total rainfall for the Island for the nine months is given below and shows an excess of 15.44 inches over the 60-year average.

	1933.	60 year average.
January .. ..	1.43	4.00
February .. ..	0.48	3.13
March .. ..	4.30	3.35
April .. ..	1.37	4.77
May .. ..	6.26	8.52
June .. ..	13.76	6.60
July .. ..	11.44	4.76
August .. ..	14.49	6.93
September .. ..	11.91	7.94
	<u>65.44</u>	<u>50.00</u>

During the first half year there was a deficiency of 2.77 inches, and in the third quarter an excess of 18.21 inches, as compared with the 60-year average.

Table A attached shews the mean rainfall in each parish and the Island for the four months June to September, as compared with the 60-year average; also the mean number of rainy days as compared with the 33-year average.

St. Thomas, with 73.95 inches (approximately 18.50 inches per month) and 75 rainy days—approximately 19 per month—was the wettest parish. Manchester with 65.66 inches and 59 rainy days was second. St. Andrew with 63.50 inches and 59 rainy days third; and Portland with 62.08 inches and 68 rainy days, fourth.

As some indication of the abnormal precipitation during this period it may be noted that 46.96 inches fell in the parish of Kingston, while the normal rainfall for these four months is only 9.42 inches.

It will also be noted that the mean rainfall for the Island during this period was 51.60 inches, or nearly double the 60-year average of 26.23 inches.

The mean number of rainy days for the Island was 60, or nearly 50% above the 33-year average of 43.

It might also be noted that on only two previous occasions has the rainfall exceeded the average for four successive months.

## CITY OF KINGSTON.

In the month of September the total rainfall amounted to 8.98 inches, shewing more than double that of the 60-year normal of 3.87 ins. The total number of rainy days was 14, as compared with the 49-year average of 9.5. The greatest fall in 24 hours was 2.00 ins. on 10th. The upper boundary of Kingston gauged 11.12 ins., with 10 rainy days. Distant rain was observed to northward on 13 days, to NE on 7 days, to east on one day, to south on one day and to NW on 2 days. Southeast rainsqualls on 7th, 8th, 9th, 16th and 19th. Heavy seas to south on 8th and 9th owing to disturbed weather.

The following Table gives the respective figures of rainfall for each month from January to September (1 year), and the corresponding 60-year averages in inches.

	Rainfall 1933.	60-year averages.
	Ins.	Ins.
January ..	0.67	0.87
February ..	0.00	0.61
March ..	0.82	0.94
April ..	0.05	1.17
May ..	2.85	4.02
June ..	11.83	3.51
July ..	9.86	1.54
August ..	13.50	3.60
September ..	8.98	3.87
Totals	48.56	20.13

It will be apparent that the aggregate precipitation for the nine months was more than double the average. There were 66 rainy days as against an average of 55 for the same period.

The mean barometric pressure was 29.864 inches, as compared with the 33-year normal of 29.889 ins., shewing 0.025 inch below the normal. The highest barometer reading was 29.976 ins. on 17th at 3 p.m., and the lowest 29.794 ins. on 10th at 7 p.m. (owing to nearby weather disturbance) correc. for diur. var.

The mean monthly temperature, based upon four observations per day was 78.7 degs., the 33-year normal 80.6 degs., or 1.9 deg. below the normal. Highest maximum temperature was 90.9 degs. on 5th, and the lowest minimum 69.1 degs. on 18th. Then, the lowest maximum was 78.0 degs. on 19th (during a rainy day), and the highest minimum 77.1 degs. on 21st. The greatest range of temperature was 18.9 degs. on 18th, and the least range 6.3 degs. on 19th, owing to a low maximum. The maximum was above 90 degs. once, and the minimum below 70 degs. four times.

The mean daily miles of wind registered was 176, and the 20-year normal 166, shewing an excess of about 6%. Greatest number of miles of wind in one day was 317 on 20th, and the least 99 on 11th. South-easterly wind commenced early on four days, and continued after 7 p.m. on 13 days.

Distant lightning at night to north on 2 nights, to NE on 2, to east on 2, to SE on 2. Distant thunderstorm to northward on 8 days, to NE on 2, to east on one, to SE on one, to south on one and to NW on 5 days. Sharp local thunderstorm on 6th, 10th and 25th.

Mean relative humidity 86%, owing to heavy rainfall, and the 33-year normal gives 82%, or 4% above the normal. The mean 7 a.m. was 89%, and mean 3 p.m. 76%. Lowest 7 a.m. 75%, on 5th, and the lowest 3 p.m. 59% on 3rd.

The sky was overcast in the early morning on 18 occasions, and in the afternoon on 25.

The total evaporation for the month of September was 3.98 ins. and the 10-year normal gives 5.12 ins. Mean daily number of sunshine hours was 6.5.

#### EARTHQUAKE.

Slight shock on 7th at 12.26 p.m. Direction N-S, duration 2 secs. Hor. movement 0.025 in.

#### CAYMAN ISLANDS.

Government House, Georgetown, Grand Cayman.—For the month of September, 1933, the total rainfall was 18.97 ins. The greatest fall in 24 hours was 5.03 ins. on the 21st, with 19 rainy days.

#### WEATHER DISTURBANCES, SEPTEMBER.

The following weather disturbances were within barometric range of Jamaica:—

The weather disturbance mentioned in the August Weather Report, as having developed on 29th August to the ENE of Porto Rico, passing near to Havana, Cuba, on 1st September of near hurricane force, proceeded on its track, somewhat westerly, until it was reported between Brownsville and Corpus Christi (Texas, U.S.A.) on 4th September. Much destruction was experienced in the State of Texas.

2. On the 1st September, a weather disturbance was located to the NE of San Juan, Porto Rico. It moved in a WNW course, passing Turks Island on the night of the 2nd, changing north-westerly, until it entered the eastern coast of southern Florida (U.S.A.), on 4th, in the afternoon, changing again to NNW, entering the State of Georgia (U.S.A.) on 5th, then it curved to north-north-eastward. Extensive damages were reported.

3. On the 10th September, 10 p.m., a disturbance was reported about 450 miles to the NE of Porto Rico. It moved in a somewhat north-westerly course, when it entered the eastern coast of the United States, south-west of Hatteras. Considerable damages were reported.

4. On the 11th September, a weather disturbance was reported to the NE of Belize, British Honduras, moving slowly. On the 13th at 10 a.m. it entered the Yucatan Peninsula, then on the 14th it passed to the south of Campeche, and over the south-western region of the Gulf of Mexico, entering near to Tampico, Mexico, on the 15th September, causing great destruction.

5. About a week after the preceding storm, another weather disturbance developed to the SSE of Jamaica, on the 19th September. It followed a west-north-westerly course for some distance. On the 21st it entered the northern section of Yucatan Peninsula, and emerging on the opposite coast, it traversed the Gulf of Mexico (SW), and Tampico, Mexico, again, experienced a severe storm, on or about the 24th at 10 p.m., causing great destruction. Heavy rains fell in Jamaica from the 16th to 19th.

J. F. BRENNAN,  
Government Meteorologist.

Kingston, October 20th, 1933.



TABLE A.  
JAMAICA RAINFALL—JUNE TO SEPTEMBER, 1933.

Parish.	Mean Rainfall.					Rainy Days.				
	June.	July.	August.	September.	Total.	June.	July.	August.	September.	Total.
	Ins.	Ins.	Ins.	Ins.	Ins.					
Kingston ..	12.43	11.08	14.14	9.31	46.96	13	8	12	15	48
St. Andrew ..	14.93	13.49	21.09	13.99	63.50	16	10	16	17	59
St. Thomas ..	20.58	18.52	18.82	16.03	73.95	21	15	19	20	75
Portland ..	16.67	15.39	17.56	12.46	62.08	20	17	16	15	68
St. Mary ..	14.10	6.65	16.07	9.81	46.63	16	9	14	15	54
St. Ann ..	9.68	7.22	13.97	6.76	37.63	13	8	15	12	48
Trelawny ..	12.77	7.69	10.66	6.76	37.88	15	9	15	13	52
St. James ..	12.67	7.00	11.03	10.92	41.62	17	10	18	19	64
Hanover ..	15.40	9.71	12.40	9.58	47.09	21	14	20	20	75
Westmoreland ..	14.71	10.12	11.42	12.90	49.15	20	14	21	20	75
St. Elizabeth ..	10.49	7.86	8.99	11.78	39.12	13	7	11	14	45
Manchester ..	13.65	16.98	15.22	19.81	65.66	16	10	16	17	59
Clarendon ..	14.05	17.91	13.62	12.15	57.73	16	9	14	16	55
St. Catherine ..	15.31	11.37	19.16	9.64	55.48	15	10	15	16	56
The Island *	13.76	11.44	14.49	11.91	51.60	17	11	16	16	60
60-year Average ..	6.60	4.76	6.93	7.94	26.23	33-year average 10	9	11	13	43

\* Means for Stations with Averages only.

No. 682.



JAMAICA

# WEATHER REPORT.

FOR THE MONTH OF

OCTOBER, 1933.

The Bar. pressure at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32°, gravity at Lat. 45° and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screen; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small four-cup instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds cumulus and the Upper clouds, cirrus and cirro-stratus.

The rainfall is measured at 7 a.m., and entered as having fallen on the previous day.

The 7th Meridian Time West of Greenwich adopted from 1st February, 1912.

## METEOROLOGICAL RESULTS.

STATIONS.	Elevation.	Bar. Pressure		Temperature.				Extreme Temperature.					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Date.	Min.	Date.	Range.
	ft.	ins.	ins.	°	°	°	°	°	°		°		°
Morant Point Light House	8	29.837	29.800	79.4	81.5	84.3	75.9	8.4	87.5	9	71.6	2	15.9
Kingston	24	29.814	29.770	75.1	82.1	85.2	72.7	12.5	90.0	19	70.3	14	19.7
Negril Point Light House	33	29.812	29.766	76.8	82.3	85.5	73.7	11.8	89.2	18	70.5	26	18.7
Castleton Gardens	496			70.9	78.5	83.3	69.9	13.4	90.0	19	66.0	24	24.0
Hope Gardens†	668	29.816	29.733	73.5	80.4	83.7	69.5	14.2	89.0	12*	68.0	3*	21.0
Boon Hall	970												
Hill Gardens	4,900	25.198	25.174	63.9	64.5	66.8	56.6	10.2	70.0	17*	55.0	3*	15.0

STATIONS.	Elevation.	Dewpoint and Humidity.					Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.					7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		ft.	°	%	°	%			ins.	Mls.		m.		m.	L.	M.	U.	L.
Morant Point Light House	8	75	87	75	83	23.97	259	N.E	13.0	Var.	12.0	2.7	1.5	2.9	3.8	1.7	1.6	
Kingston	24	72	90	74	77	17.98	177	SE	6.4	S.S.E	9.9	4.3	0.4	1.5	5.7	1.1	1.8	
Negril Point Light House	33	73	89	74	78	18.85	283	E	10.0	Var.	15.0	1.6	1.8	4.7	3.5	3.4	1.6	
Castleton Gardens	496	69	95	75	91	49.94	..	..	..	..	..	..	..	..	..	..	..	
Hope Gardens	668	70	90	73	78	33.27	..	..	..	..	..	..	..	..	..	..	..	
Boon Hall	970	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Hill Gardens	4,900	59	85	62	93	44.19	..	..	..	..	..	..	..	..	..	..	..	

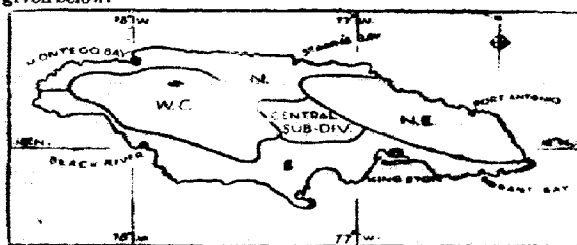
\*And on other days. † Hope Gardens Bar. read at 9 a.m. and 3 p.m.

## THE RAINFALL.

The first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1919." In obtaining the mean Rainfall for the month only those stations are considered for which the average Rainfall has been also given in the last column so that the results derived from these two columns are comparable for each Division. These results are given in the comparative table at the end of this Rainfall Return so as to arrive at the mean for the whole Island, embracing the four Divisions.

The Northern Division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-divisions; the Southern Division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central Divisions are the remaining parts of the Island bounded by the sea and the other Divisions.

A Map showing these Rainfall Divisions is published in Mr. Maxwell Hall's "Rainfall of Jamaica," following page 27, 1911 Edition, and of page 20 of 1923 Edition, an outline of which is given below.



October, 1933.

STATIONS.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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\* Gauge overflowed.

STATIONS.	October, 1933.					STATIONS.	October, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
NORTHERN DIVISION, contd.						WEST-CENTRAL DIVISION, contd.					
Grange	18.50	6.11	29	15	..	Mandeville	42.47	8.50	28	19	14.86
Adelphi	16.30	4.00	29	14	5.98	Ulster Spring	31.91	4.77	29	23	11.90
Success	21.14	6.00	29	15	6.24	Marshall's Pen	41.55	12.04	28	13	12.02
Rose Hall	14.08	3.00	29	15	6.66	Greenvale	35.85	6.40	28	20	..
Cinnamon Hill	13.55	3.65	29	15	6.01	Albert Town	33.10	7.44	29	24	11.79
Tryall	16.89	4.00	29	15	5.52	Craig Head	52.27	8.10	2	18	..
Running Gut	12.90	3.10	29	14	6.33	Warsop	38.90	5.56	29	23	..
Spring Estate	18.91	5.20	29	18	10.16	Troy	58.11	5.07	3	21	15.46
Friendship	17.29	3.95	2	16	9.63	Wallingford	43.38	7.11	3	26	13.54
Retirement	13.43	4.30	29	20	..	Balaclava	37.62	6.07	29	22	12.22
Rose Mount	15.26	5.50	29	18	7.53	Wakefield	18.19	5.05	29	19	..
Montego Bay	12.66	3.20	2	20	6.96	Maggotty	34.15	8.00	2	20	13.85
Anchovy	21.71	6.02	29	16	..	Lacovia	27.93	6.60	3	16	..
Bamboo-Hanover	17.19	5.80	2	13	10.44	Ipswich	19.13	6.00	29	19	9.67
Blue Hole	17.45	5.45	29	13	7.99	Kempshot	..	..	..	..	..
Kew	16.34	5.45	29	15	8.12	Garlands	..	..	..	..	..
Lucea	16.15	6.00	29	10	7.18	Mocho, St. James	41.21	7.06	3	23	..
Haughton Court	16.79	5.36	29	14	..	Bandon Pen	31.88	7.27	29	17	..
Cousins Cove	18.77	5.06	29	15	8.61	Catadupa	40.25	10.90	29	26	14.00
Green Island	11.41	3.62	2	19	..	Cambridge, St. James	35.59	9.90	29	24	12.42
Haughton Hall	..	..	..	..	..	New Market	38.60	10.20	29	18	13.14
CENTRAL SUB-DIVISION.						Kew Park	31.39	10.00	29	25	12.03
Knollis	27.21	5.31	28	17	..	Montpelier	23.69	5.11	29	14	9.68
Highgate	28.58	5.58	28	24	..	The Bog	31.87	8.04	29	22	13.75
Rio Magno	29.25	6.10	28	20	..	Bethel Town Dist.	39.33	9.08	29	26	16.37
Riversdale	24.59	4.72	29	17	9.03	Burnt Ground	24.96	5.36	29	17	12.28
Headworks, R.C.C.	32.21	4.50	28	14	..	Haughton Grove	22.98	5.81	29	16	11.67
Bog Walk	27.83	5.71	3	18	9.46	Darlston	35.11	8.00	29	25	14.89
Linstead	32.23	9.30	29	21	..	Bluefields	24.83	7.11	29	21	10.89
Ewarton	16.79	2.32	3	19	9.81	Whithorn	27.62	8.53	29	23	12.70
Cave Valley	27.63	5.60	28	17	..	Water Works Pen	30.40	9.50	2	23	11.31
Guanaboa Vale	44.24	8.20	2	20	14.43	Askenish	20.95	3.00	3	14	14.36
Point Hill	38.11	9.50	28	15	12.12	Grange Hill	32.66	13.35	29	20	12.85
Brown's Hall	45.55	9.00	28	13	11.55	King's Vale	9.03	3.00	29	13	9.27
Bellas Gate	39.89	8.75	2	21	..	SOUTHERN DIVISION (S.)					
Rock River	48.13	10.09	2	19	10.10	Morant Point L.H.	23.97	6.51	28	24	11.35
Crofts Hill	40.71	9.58	2	17	..	Golden Grove	24.98	6.91	28	19	..
Far Enough	36.58	6.20	2	18	..	Pleasant Hill	27.50	6.96	28	20	11.37
Suttons	37.65	6.18	2	19	..	East Prospect	28.74	8.38	28	19	11.83
Colonel's Ridge	37.68	7.50	2	19	12.13	Morant Bay	23.65	8.22	28	16	12.12
Chapelton	30.93	4.81	3	23	..	Aeolus Valley	..	..	..	..	..
Crooked River	26.84	4.50	28	20	..	Yallahs	21.49	7.87	28	12	..
James Hill	39.99	6.45	3	19	11.27	Easington	30.28	7.17	28	16	11.41
Frankfield	35.74	7.30	1	12	13.81	Mavis Bank	49.24	10.53	29	22	..
WEST-CENTRAL DIVISION (W.C.)						Bull Bay	15.02	4.04	28	8	7.33
Mocho, Clarendon	30.74	6.21	1	15	..	Dallas Castle	63.83	8.15	6	15	..
Clarendon Park	32.85	5.38	3	14	..	Gordon Town	53.01	10.85	29	18	12.24
Porus	31.49	6.54	2	18	..	Irish Town	48.23	10.00	29	23	10.54
Borobridge	46.02	8.80	2	24	13.05	Hope Gardens	33.27	6.34	29	21	9.68
Spaldings	34.70	8.41	29	19	..	Waireka	38.00	4.00	3	16	..
Williamsfield	44.25	8.82	28	16	13.95	Ivor	..	..	..	..	..
Brokenhurst	34.05	6.90	2	16	12.08	Barbican	28.29	6.18	3	20	..
Shooters Hill	41.81	10.00	29	21	12.88	Plumb Point L. H.	19.86	5.45	29	12	7.15
Low River	38.06	7.36	2	25	10.97	King's House Gar.	..	..	..	..	8.55
Christiana	49.65	8.10	2	12	15.41	Upper Kingston	22.28	6.05	28	17	6.22
Clifton Hill	31.39	3.06	28	16	13.65	Kingston P.W.O.	17.98	5.33	28	18	7.10
Kendal, Manchester	51.49	10.36	29	21	..	Halfway Tree	25.86	6.63	28	19	8.05
Mereworth	..	..	..	..	..	Clifton Pen	25.34	7.30	28	14	6.56
						Red Hills	29.32	7.25	3	16	..

STATIONS.	October, 1933.					STATIONS.	October, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
SOUTHERN DIVISION, contd.						SOUTHERN DIVISION, contd.					
Quarantine Station	16.24	5.08	29	13	5.34	Great Valley, Man.	28.96	6.50	28	18	10.15
Hematine	18.55	4.13	28	16	6.86	Alligator Pond	26.34	9.00	30	12	7.49
Spanish Town	19.96	4.27	28	16	8.34	Fairfield	35.31	8.47	29	22	10.33
The Stewartry	20.93	4.89	28	14	..	Lititz	26.83	6.40	29	12	7.35
Hog Hole, St. Cath.	22.76	4.72	28	17	8.94	Myersville	34.52	14.00	29	13	..
Old Harbour	28.77	6.82	29	10	9.50	Southfield, St. Eliz.	27.69	5.95	2	16	8.25
May Pen	27.14	7.87	2	14	9.90	Munro	..	..	..	..	..
Glen Muir	23.30	11.00	2	5	..	Windsor, St. Eliz.	33.26	9.82	2	18	..
Cottage	19.36	4.95	28	16	..	Torrington	32.81	10.00*	28	13	10.09
Belle Plain	31.37	6.76	1	11	..	Santa Cruz	29.08	6.60	2	15	11.93
Milk River	23.81	5.78	2	12	8.20	Pedro Plains	20.02	6.10	2	13	5.44
Retrieve	25.06	6.69	28	11	9.44	Mountainside	26.81	8.00	28	10	7.87
Hog Hole, S. Man.	28.88	5.58	3	11	12.69	Fort Charles	9.82	3.36	2	6	..
Stone's Hope	39.58	8.53	28	17	12.14	Black River	19.63	4.57	2	15	8.06
Newport, Man.	40.07	7.50	2	20	11.79	Font Hill	18.65	5.40*	2	12	8.81
						Mount Edgecombe	16.00	4.65	2	16	9.80
						Sweet River	20.06	7.15	29	19	9.94
						Sav.-la-Mar	18.15	5.90	29	18	8.87
						Little London	24.19	7.99	29	20	10.50
						Retrent	18.32	4.75	29	18	10.10
						Negril Point L.H.	18.85	5.85	29	21	8.21
						* Gauge overflowed.					

\* Gauge overflowed.

## NOTES.

## SHOCKS OF EARTHQUAKE IN OCTOBER, 1933.

COMPARATIVE TABLE OF RAINFALL AND RAINY DAYS.					Date.	Standard Time (Approx.)	Intensity.	Notes: where, etc.
DIVISIONAL  AND  ISLAND RAINFALL.	October.				29		I	Clifton Hill
	Rainfall.		Rainy Days.		30	7.00 p.m.	I	Spring Garden Orange Vale Mount Holstein.
	1933.	Ave.	1933.	Ave.				
	Ins.	Ins.						
North-Eastern	31.60	11.72	19	15				
Northern	21.51	7.57	16	12				
West-Central	34.33	11.97	19	17				
Southern	26.28	9.29	16	13				
The Island means	28.43	10.14	17	14				

N.B. IT IS PARTICULARLY REQUESTED THAT ALL RAINFALL POSTCARDS BE SENT IN NOT LATER THAN THE 6TH OF EACH MONTH.

### THE ISLAND—OCTOBER.

The mean monthly rainfall for the Island (28.43 ins.) was again much above the average in all Divisions, and is the highest mean recorded for any month during the past 63 years. This is also the first occasion on which the average rainfall has been exceeded for five consecutive months.

Heavy flood rains, due to the proximity of weather disturbances, occurred during the first and the last few days of the month, particularly on the 2nd and 3rd and the 28th and 29th. Otherwise the rainfall was well distributed, as the mean number of rainy days was 17, the average being 14. The greatest number of rainy days was 26 at Wallingford, Catadupa and Bethel Town district, all in the West Central Division, and a large number of other stations had over 20.

The greatest total fall for the month was 69.81 inches at Cedar Hurst in the North-Eastern Division, and the heaviest fall in 24 hours was 14.51 at the same station on the 3rd.

### RAINFALL JUNE TO OCTOBER.

Table A attached (page 7) shows the mean rainfall in each parish and the Island for the five months, June to October, compared with the 60-year average, also the mean number of rainy days for the period compared with the 33-year average.

St. Thomas with 106.97 inches and 93 rainy days, was the wettest parish. Manchester with 102.69 inches and 76 rainy days was second, St. Andrew with 99.82 inches and 78 rainy days, was third, and Portland, with 94.89 inches and 87 rainy days, fourth.

The mean rainfall for the Island during this period was 80.03 inches, more than double the 60-year average of 36.37 inches, and the mean number of rainy days was 77 as compared with the 33-year average of 57.

### CITY OF KINGSTON.—OCTOBER.

In the month of October the total rainfall amounted to 17.98 inches, which is more than double the 60-year average of 7.11 inches. Although this was excessive, it may be mentioned that during the past 63 years greater totals were recorded in October on three occasions viz., 30.67 inches in 1879, 23.45 inches in 1897 and 21.65 inches in 1905. The number of rainy days was 18, as compared with the 49-year average of 11.8 days. The greatest fall in 24 hours was 5.33 inches, on 28th, owing, no doubt, to the proximity of a weather disturbance forming to the south-east of Jamaica at that time. The upper boundary of Kingston gauged 22.28 inches, with 17 rainy days. Distant rain was observed to northward on 8 days, to NE, SW and West on one day each. South-easterly rain squalls on 2nd, 4th, 5th, 27th and 28th. Heavy squall on 3rd. Heavy sea to the south on 28th, in the afternoon, evidently caused by the weather disturbance in progress to southward.

The mean barometric pressure was 29.805 inches as compared with the 33-year normal of 29.866 inches (0.061) inch below normal. This low pressure was due to the weather disturbances in the vicinity during the early and late days of the month. The highest barometer reading was 29.917 inches on 16th, at 7 a.m., and the lowest 29.601 inches on 29th, at 3 a.m. (hurricane then to SW), corrected for diurnal variation.

The mean monthly temperature, based upon four observations per day, was 78.3 degs., the 33-year normal being 79.4 degs. or 1.1 deg. below the normal. The highest maximum temperature was 90.0 degs. on 19th, and the lowest minimum 70.3 degs. on 11th. Conversely the lowest maximum temperature was 75.4 degs. on 28th, (a rainy day), and the highest minimum temperature was 75.9 degs. on 6th. The greatest range of temperature 17.3 degs. on 22nd, and the least range 3.1 degs. on 28th. The maximum did not exceed 90 degrees.

The mean daily miles of wind registered was 177, an excess of 15% over the 20-year normal of 154. The greatest number of miles of wind in one day was 571 on the 29th, and the least, 80 on the 31st. South-easterly wind commenced early on 3 occasions and continued until after 7 p.m. on 3 days.

Distant lightning at night to north once. Distant thunderstorm to north 9 days, to S.W and N.W on one day each. Sharp local thunderstorm on 3rd.

Mean relative humidity 86%, and the 33-year normal 84%. The mean 7 a.m. was 90%, and the mean 3 p.m. 77%. Lowest 7 a.m., 82% on 17th, and the lowest 3 p.m. 51% on 19th.

The sky was overcast in the early morning on 17 occasions, and in the afternoon on 23.

The total Evaporation for the month was 2.78 inches, and the 10-year average 4.04 inches.

Mean daily number of sunshine hours, 5.2.

### WEATHER DISTURBANCES.

There were 3 weather disturbances within barometric range of Jamaica, during the month of October, one of which developed into a hurricane over Western Jamaica. The following are some notes concerning them:—

1. On the 1st October a weather disturbance was located to the south of Jamaica, moving west-north-westward or north-westward. The Kingston barometer at 7 a.m. on that date indicated 29.69 inches, or 0.12 inch below the normal. At the same hour the reading at Negril Point gave 29.68 inches, or 0.13 inch below normal. This disturbance apparently moved north-westerly, for on the 2nd the Negril barometer fell to 29.63 inches, and reports of south-east rainsqualls with heavy sea-swell from the south were telegraphed from Negril. This disturbance, on the 2nd was estimated to be to the south-west of Negril Point, moving around the westward of Negril and curving towards Cuba. There was, evidently, a general low barometric pressure over the entire Caribbean Sea, from the 29th September, but no definite centre could be located until the 2nd. The following notice was issued on 2nd October at 7 a.m., by the Jamaica Weather Service—"From local observations there is apparently a weather disturbance now developing to the south or the south-west of Negril Point, and caution is advised, especially in the western section of Jamaica during the next 30 hours." The U.S.W. Bureau issued a warning on 2nd later on, stating that there was a Tropical Disturbance probably of increasing intensity central about 150 to 200 miles WSW of Negril Point, moving slowly to the northward, attended by gales. This storm then coursed around to west of Negril on the 2nd, and was reported on the 3rd and 4th to have crossed over Cuba, passing a little to the east of Havana on the 4th at about noon, causing some damage. It proceeded on a north eastward course after this, and passed near to the south-eastern coast of Florida, U.S.A., on the 5th, thence to the Bahama Islands, and ended in the vicinity of Halifax (N.S.) on the 8th.

Heavy rainfall was experienced throughout Jamaica from 1st to 4th October. South-easterly gales were reported at Negril on the 2nd, recording 48 miles per hour at about 8.30 a.m. The barometric pressure at Negril Point on the 3rd at 4 a.m. showed 29.547 inches, representing a fall of 0.322 inch below the normal.

No serious damages in Jamaica were reported, beyond some losses to cultivated areas near to the storm centre.

2. On the 2nd October (at the same time as the existence of the above disturbance) the United States Weather Bureau issued a notice to the effect that another disturbance of slight intensity, was located a short distance to the NNW of Turks Island. On the 3rd its centre was reported as being about 200 miles to the north-north-eastward of Turks Island, apparently moving NNE with increasing intensity. This storm eventually continued into the North Atlantic Ocean.

3. Hurricane of Sunday 29th October.—During the early hours of Saturday, 28th October, local observations pointed to the existence of a weather disturbance developing to the south-east of Jamaica moving to the west-north-westward. Warnings were promptly issued to all the telegraph offices. This weather disturbance moved WNW-ward or north-westward, and at about 6 p.m. on 28th it was to the south of Kingston, a vessel having passed near to its centre about 120 miles to the south of Kingston. There was a heavy sea swell immediately south of Kingston. The disturbance apparently increased to hurricane force during the night of the 28th and at about 7 or 8 a.m. on Sunday 29th, the centre apparently moved inland of western Jamaica, through the parishes of St. Elizabeth and Westmoreland, and crossed over Hanover to the northside at 6 p.m. on 29th, moving towards Cuba. The storm evidently diminished in intensity after passing the vicinity of Black River and Sav-la-Mar, where marked destruction of property occurred. Cultivation in the vicinity suffered. Several persons lost their lives owing to falling buildings, and three others were lost in a vessel which foundered off the town of Black River.

The above is merely a preliminary statement concerning this hurricane, as there are numerous reports to hand bearing on the subject, many of which include instrumental observations (barometer readings wind, etc.), which necessitate tabulating and studying closely. Also the preparation of maps has to be undertaken. Consequently it will be more expedient to compile a detailed report later on, which will be published as a separate Weather Report similar to the course adopted on the occasion of previous hurricanes in Jamaica.

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#### CAYMAN ISLANDS.

Government House, Georgetown, Grand Cayman.—For the month of October, 1933, the total rainfall was 3.03 ins. The greatest fall in 24 hours was 1.30 ins. on the 6th with 10 rainy days.

J. F. BRENNAN,  
Government Meteorologist.

Kingston,  
November 25th, 1933.

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#### CORRIGENDUM.

Weather Report No. 653, August, 1931, page 5—Weather Disturbance (2),  $\frac{1}{2}$  tenth below normal, not  $\frac{1}{2}$  inch.

TABLE A.

JAMAICA RAINFALL—JUNE TO OCTOBER, 1933.

Parish.	Mean Rainfall.					Rainy Days.						
	June.	July.	August.	September.	October.	Total.	June.	July.	August.	September.	October.	Total.
	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.						
Kingston	12.43	11.08	14.14	9.31	20.04	67.00	13	8	12	15	16	64
St. Andrew	14.93	13.49	21.09	13.99	36.32	99.82	16	10	16	17	19	78
St. Thomas	20.58	18.52	18.82	16.03	33.02	106.97	21	15	19	20	18	93
Portland	16.67	15.39	17.56	12.46	32.81	94.89	20	17	16	15	19	87
St. Mary	14.10	6.65	16.07	9.81	24.30	70.93	16	9	14	15	17	71
St. Ann	9.68	7.22	13.97	6.76	20.58	58.21	13	8	15	12	16	64
Trelawny	12.77	7.69	10.66	6.76	25.11	62.99	15	9	15	13	19	71
St. James	12.67	7.00	11.03	10.92	21.26	62.88	17	10	18	19	18	82
Hanover	15.40	9.71	12.40	9.58	18.61	65.70	21	14	20	20	15	90
Westmoreland	14.71	10.12	11.42	12.90	25.19	74.34	20	14	21	20	21	96
St. Elizabeth	10.49	7.86	8.99	11.78	26.30	65.42	13	7	11	14	15	60
Manchester	13.65	16.98	15.22	19.81	37.03	102.69	16	10	16	17	17	76
Clarendon	14.05	17.91	13.62	12.15	34.72	92.45	16	9	14	16	17	72
St. Catherine	15.31	11.37	19.16	9.64	29.58	85.06	15	10	15	16	17	73
The Island*	13.76	11.44	14.49	11.91	28.43	80.03	17 33-year average 10	11	16	16	17	77
60-year Average	6.60	4.76	6.93	7.94	10.14	36.37		9	11	13	14	57

\* Means derived from the monthly Weather Reports—average stations only.





JAMAICA

# WEATHER REPORT.

FOR THE MONTH OF

NOVEMBER, 1933.

The Bar. pressure at all the Stations, except the Hill Gardens, are reduced to the standards of Kew, 32°, gravity at lat. 43° and mean sea-level. The bar. at Hill Gardens is reduced to the first three standards only. Thermometers are exposed in Stevenson's Screen; their readings have been corrected for instrumental errors.

The miles of Wind per diem are measured by Robinson's Anemometers, the factor 3 being assumed correct for the small four-cup instruments used and for the small velocities measured.

The amount of Cloud is given in tenths of the whole sky; the Lower clouds are for the most part fracto-stratus; the Middle clouds cumulus and the Upper clouds, cirrus and cirro-stratus.

The rainfall is measured at 7 a.m., and entered as having fallen on the previous day.

The 7th Meridian Time West of Greenwich adopted from 1st February, 1912.

## METEOROLOGICAL RESULTS.

STATIONS.	Elevation.	Bar. Pressure		Temperature.				Extreme Temperature.					
		7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	Range.	Max.	Date.	Min.	Date.	Range.
	ft.	ins.	ins.	°	°	°	°	°	°	°	°	°	°
Morant Point Light House	8	29.873	29.837	78.5	81.3	82.9	75.1	7.8	85.6	4*	69.8	5	15.8
Kingston	24	29.880	29.829	72.5	82.2	84.5	70.4	14.1	88.5	1	67.1	1	21.4
Negril Point Light House	33	29.900	29.850	75.5	82.1	84.5	73.1	11.4	89.0	13	66.6	21	22.4
Castleton Gardens	496			70.7	78.5	80.8	69.7	11.1	88.0	1	66.0	5*	22.0
Hope Gardens†	668	29.938	29.857	71.5	79.7	82.3	68.5	13.8	86.0	1*	66.0	24*	20.0
Boon Hall	970												
Hill Gardens	4,900	25.210	25.191	62.9	64.4	66.8	56.3	10.5	73.0	1	55.0	21*	18.0

STATIONS.	Elevation.	Dewpoint and Humidity.					Rainfall.	Wind per diem.	Wind: direction from and miles per hour.				Amount of Cloud. Lower, Middle and Upper.					
		7 a.m.		3 p.m.					7 a.m.		3 p.m.		7 a.m.			3 p.m.		
		ft.	°	%	°	%			ins.	Mls.		m.		m.	L.	M.	U.	L.
Morant Point Light House	8	73	84	74	78	11.34	324	N.E	14.0	N.E	15.0	2.3	2.2	1.3	2.4	3.3	0.9	
Kingston	24	70	91	73	74	6.09	125	N	4.9	S	8.2	3.3	0.1	1.3	5.2	2.1	0.6	
Negril Point Light House	33	72	86	73	74	7.79	223	N	11.0	N	13.0	4.4	0.2	2.8	3.8	2.7	0.9	
Castleton Gardens	496	69	95	74	86	38.48	..	..	..	..	..	..	..	..	..	..	..	
Hope Gardens	668	68	89	74	79	12.28	..	..	..	..	..	..	..	..	..	..	..	
Boon Hall	970	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Hill Gardens	4,900	61	90	62	93	27.88	..	..	..	..	..	..	..	..	..	..	..	

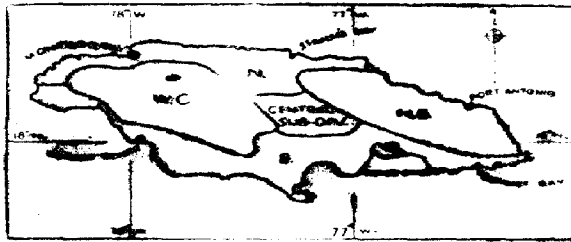
\*And on other days. † Hope Gardens Bar. read at 9 a.m. and 3 p.m.

## THE RAINFALL.

The first four columns contain all the information relating to the Rainfall for the month received for publication up to the time of sending this report to press; the last column contains the corresponding Rainfall average for the month according to "The Rainfall of Jamaica from about 1870 to the end of 1919." In obtaining the mean Rainfall for the month only those stations are considered for which the average Rainfall has been also given in the last column so that the results derived from these two columns are comparable for each Division. These results are given in the comparative table at the end of this Rainfall Return so as to arrive at the mean for the whole Island, embracing the four Divisions.

The Northern Division comprises the northern shores from Port Maria to Davis' Cove, including the central part of the Island which forms the Central Sub-divisions; the Southern Division comprises the southern shores from Holland Bay to South Negril; the North-Eastern and West-Central Divisions are the remaining parts of the Island bounded by the sea and the other Divisions.

A Map showing these Rainfall Divisions is published in Mr. Maxwell Hall's "Rainfall of Jamaica," following page 27, 1911 Edition, and of page 20 of 1923 Edition, an outline of which is given below.



November, 1933.

STATIONS.	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.						
		Amount.	Date.								
						Guy's Hill	17.60	2.75	30	20	10.74
						Lucky Hill	17.03	1.78	15	25	14.78
						Rio Hoe	14.17	1.88	11	19	10.78
						Unity Valley	13.45	2.92	19	24	10.35
						Moneague	12.25	2.44	19	21	11.84
						Claremont	15.12	1.50	19	17	11.99
						Averham Park	17.33	1.81	16	25	13.38
						Albion	15.25	2.47	15	24	10.62
NORTH-EASTERN DIVISION. (N.E.)											
Manchioneal	20.46	2.60	14	25	14.25	Port Maria	17.27	4.20	14	21	11.02
Priestman's River	23.30	3.60	25	18	11.66	Wentworth	4.11	0.90	24	6	
Bath	22.97	4.42	22	21	14.24	Eden Park					
Barrett's Gap	27.92	4.80	22	26		Oracabessa	15.34	3.05	15	20	
Millbank	54.43	5.95	15	24		Huddersfield	12.81	2.09	14	14	
Moore Town	60.36	6.00	15	25	33.29	Ocho Rios	13.46	2.71	15	21	9.50
Port Antonio	26.64	3.60	25	26	16.98	Bogue, Ocho Rios	16.66	3.30	14	16	11.60
Passley Garden	21.87	2.35	23	23		Drax Hall	11.71	3.73	15	18	10.15
Fellowship	46.90	5.50	15	21	25.41	Rockfield	20.21	3.65	12	24	15.09
Johnson River Br.	17.01	4.07	25	16	8.91	Liberty Hill	7.22	2.75	15	18	11.06
Trinity Ville	22.93	4.43	25	19		St. Ann's Bay	12.39	3.60	15	18	9.58
Shrewsbury	50.13	11.86	15	27	29.72	Seville					10.18
Hope Bay	26.67	4.20	15	27		Richmond Estate	9.95	2.37	15	19	9.64
Cedar Valley	22.01	5.45	25	24	12.08	Llandoverly					9.72
Moy Hall	24.69	5.37	25	25	17.45	Runaway Bay	9.04	1.30	15	21	3.98
Paradise	48.15	8.26	15	27		Knapdale	19.33	3.24	12	23	
Lennox	31.31	3.82	29	24		Alexandria	8.73	1.80	19	17	5.45
Greenvale	51.48	6.33	15	25	33.76	Bel-Air	11.00	1.35	15	20	
Spring Garden	26.03	6.25	14	26	13.01	Brown's Town	14.15	1.73	12	23	11.23
Hill Gardens	27.88	5.70	15	21	15.57	Watt Town, St. Ann	6.55	0.60	5	21	5.15
Buff Bay	26.95	6.20	15	24	15.92	Home Castle	17.90	3.10	12	20	9.00
Orange Vale	47.38	9.50	12	27		Richmond Pen					5.99
Belvedere, Portland	30.88	5.38	25	20	15.52	Arcadia	12.67	1.85	12	25	7.50
Windsor Castle, do.	26.33	5.20	15	23	15.45	Vale Royal	10.77	1.92	12	24	7.75
Balcarras	55.07	6.50	15	24		Harmony Hall					6.11
Mt. Holstein	41.06	4.78	12	28	30.39	Duncans	10.33	1.56	27	15	
Cedar Hurst	35.45	6.72	16	29		Clark's Town	15.07	3.85	19	18	
Hardware Gap	57.99	10.49	7	29	16.76	Falmouth	10.79	2.93	26	10	5.02
Rose Hill	11.99	1.85	5	23	15.38	The Hague	10.10	1.85	27	21	
Hermitage	18.15	2.90	17	23		Wales	6.70	2.55	12	15	
Mount James	30.32	5.55	16	24		Canaan					6.74
Stony Hill Ind. Sch.	17.33	3.63	29	21	8.19						
Boon Hall	18.71	4.05	29	22							

STATIONS.	November, 1933.					STATIONS.	November, 1933.				
	Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.		Total Fall.	Greatest fall in 24 hours.		Days on which 0.01 or more fell.	Average.
		Amount.	Date.					Amount.	Date.		
NORTHERN DIVISION, contd.						WEST-CENTRAL DIVISION, contd.					
Grange	12.34	2.54	25	22		Mandeville	9.91	4.65	25	16	7.05
Adelphi	10.60	3.25	27	14	5.22	Ulster Spring	11.60	4.00	25	21	7.30
Success	11.17	3.60	27	14	5.71	Marshall's Pen	10.41	4.31	25	9	6.38
Rose Hall	10.40	2.80	27	15	5.56	Greenvale	9.89	3.25	25	17	
Cinnamon Hill	11.60	2.85	27	14	4.30	Albert Town	9.96	3.15	25	19	7.40
Tryall	10.22	3.00	27	14	5.21	Craig Head	12.49	4.50	25	19	
Running Gut	10.60	3.10	27	14	5.74	Warsop	8.56	2.16	19	17	
Spring Estate	17.65	5.00	25	23	5.97	Troy	17.50	7.00	19	8	7.07
Friendship	15.91	5.50	25	23	6.54	Wallingford	11.47	3.60	25	19	6.87
Retirement	15.95	4.11	25	23		Balaclava	9.10	2.64	25	13	5.93
Rose Mount	15.62	4.48	25	22	5.10	Wakefield	10.26	2.58	24	18	
Montego Bay	9.24	3.57	25	19	3.23	Maggotty	12.07	4.25	25	11	6.81
Anchovy	12.74	4.45	25	19		Lacovia	9.93	4.50	25	11	
Bamboo-Hanover	13.61	3.34	26	17	8.07	Ipswich	10.94	4.46	25	15	
Blue Hole					4.62	Kempshot	14.92	4.72	25	24	6.70
Kew	11.13	3.55	26	21	5.82	Garlands					
Lucea					4.58	Mocha, St. James	10.25	3.50	25	14	
Haughton Court	10.60	4.07	25	18		Bandon Pen	18.95	5.32	25	16	
Cousins Cove	9.48	4.00	25	14	4.62	Catadupa	8.25	4.05	25	14	8.01
Green Island	6.02	2.35	25	17		Cambridge, St. James	9.70	4.90	25	13	5.53
Haughton Hall						New Market	10.91	5.00	25	8	7.39
CENTRAL SUB-DIVISION.						Kew Park	8.07	3.83	25	12	5.66
Knollis	11.12	3.46	3	14		Montpelier	3.61	1.76	25	7	5.08
Highgate	12.65	2.62	29	20		The Bog	10.14	5.30	25	12	6.66
Rio Magno	11.01	1.15	19	24		Bethel Town Dist.	8.56	4.85	25	17	7.50
Riversdale	15.14	1.95	12	19		Burnt Ground	10.80	3.20	26	10	5.96
Headworks, R.C.C.	6.13	2.11	29	15	5.12	Haughton Grove	8.66	2.35	26	11	5.46
Bog Walk	11.32	2.12	29	14		Darliston	15.76	5.82	25	17	7.35
Linstead	9.67	1.13	29	18	6.47	Bluefields	9.56	2.50	25	15	6.48
Ewarton	8.21	1.10	24	17		Whithorn	8.21	2.10	25	11	6.06
Cave Valley	5.48	2.12	25	18	5.30	Water Works Pen	10.04	3.79	25	14	4.90
Guanaboa Vale	7.36	2.40	29	13		Askenish	12.40	6.00	27	12	5.04
Point Hill	11.93	2.79	29	20	10.01	Grange Hill	10.88	4.06	25	14	5.66
Brown's Hall	6.55	1.18	25	13	10.46	King's Vale	9.74	2.80	25	8	5.05
Bellas Gate	7.63	2.05	19	9	3.56	SOUTHERN DIVISION (S.)					
Rock River	9.14	3.37	19	10		Morant Point L.H.	11.34	2.46	22	24	7.97
Crofts Hill	5.78	1.26	24	11	6.40	Golden Grove	13.52	2.17	23	19	
Far Enough						Pleasant Hill	15.30	3.18	22	22	8.87
Suttons	9.84	3.08	19	11		East Prospect	11.95	3.18	22	19	10.31
Colonel's Ridge	7.19	2.04	19	11		Morant Bay	12.53	2.81	22	21	7.22
Chapelton	10.29	3.20	25	14	4.83	Aeolus Valley					
Crooked River	7.19	3.40	25	11		Yallahs	12.20	3.00	25	9	
James Hill	6.96	3.00	25	9		Easington	13.93	2.78	25	19	5.38
Frankfield	9.79	5.06	25	13	4.39	Mavis Bank	18.22	2.42	15	20	
WEST-CENTRAL DIVISION (W.C.)						Bull Bay	6.88	1.70	25	10	3.10
Mocha, Clarendon	11.11	3.66	25	8	5.67	Dallas Castle	14.99	3.95	15	20	
Clarendon Park	9.38	2.35	26	14		Gordon Town	16.20	2.39	13	17	9.01
Porus	10.62	3.70	25	12		Irish Town	19.85	3.21	16	21	8.98
Borobridge	9.39	5.40	25	10		Hope Gardens	12.28	1.78	16	23	5.80
Spaldings	14.51	5.76	25	16	4.88	Waireka					
Williamsfield	11.94	4.25	25	15		Ivor					
Brokenhurst	13.34	4.33	25	12	7.29	Barbican	11.82	1.75	5	21	
Shooters Hill	11.20	5.00	25	15	6.74	Plumb Point L. H.	5.31	1.30	22	12	2.45
Lowe River	12.90	5.10	25	13	8.09	King's House Gar.	9.56	1.70	16	19	4.75
Christiana	13.05	4.89	25	21	6.35	Upper Kingston	6.66	1.04	24	19	2.52
Clifton Hill	12.05	6.05	25	8	5.44	Kingston P.W.O.	6.09	1.60	5	15	2.92
Kendal, Manchester					6.41	Halfway Tree	10.13	1.25	4	20	4.05
Mereworth	14.20	6.35	25	15		Clifton Pen	8.28	1.61	5	13	4.82
						Red Hills	15.36	2.50	29	16	

STATIONS.	November, 1933.					STATIONS.	November, 1933.				
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		Amount.	Date.					Amount.	Date.		
<b>SOUTHERN DIVISION, contd.</b>	Ins.	Ins.			Ins.	<b>SOUTHERN DIVISION, contd.</b>	Ins.	Ins.			Ins.
Quarantine Station	5.34	1.04	25	12	2.56	Great Valley, Man.	7.67	4.20	25	10	4.58
Hematine	7.97	1.63	29	15	3.67	Alligator Pond	6.32	3.10	25	7	3.55
Spanish Town	8.29	1.67	29	15	3.80	Fairfield	6.80	3.03	25	19	6.59
The Stewartry	10.17	1.74	29	15		Lititz	4.23	2.15	15	6	4.38
Hog Hole, St. Cath.	13.43	2.48	29	18	4.60	Myersville	5.70	1.85	25	10	
Old Harbour	11.59	2.83	24	15	4.67	Southfield, St. Eliz.	8.51	3.10	25	13	4.69
May Pen	8.08	1.87	25	9	4.60	Munro					
Glen Muir	7.75	3.75	18	4		Windsor, St. Eliz.	7.56	2.21	25	22	
Cottage	6.04	2.39	25	8		Torrington	6.10	2.30	25	7	6.57
Belle Plain	8.21	2.80	25	10		Santa Cruz	13.88	3.38	25	15	6.09
Milk River	5.56	3.10	26	6	5.12	Pedro Plains	6.33	3.33	25	7	3.85
Retrieve	7.86	3.90	25	8	5.22	Mountainside	8.31	3.86	25	7	5.88
Hog Hole, S. Man.	8.15	2.80	24	10	5.20	Fort Charles	7.62	3.78	25	8	
Stone's Hope	10.88	3.79	25	11	5.58	Black River	8.66	4.25	25	15	4.36
Newport, Man.	10.14	3.55	25	20	6.73	Font Hill	9.45	4.25	26	8	4.82
						Mount Edgecombe					4.98
						Sweet River	8.41	2.35	25	14	3.82
						Sav.-la-Mar	7.35	2.93	26	15	3.67
						Little London	7.60	2.75	25	17	3.98
						Retreat	6.12	2.00	25	16	4.60
						Negril Point L.H.	7.79	2.40	25	14	3.83

## NOTES.

## SHOCKS OF EARTHQUAKE IN NOVEMBER, 1933.

COMPARATIVE TABLE OF RAINFALL  
AND RAINY DAYS.

DIVISIONAL AND ISLAND RAINFALL.	November.			
	Rainfall.		Rainy Days.	
	1933.	Ave.	1933.	Ave.
	Ins.	Ins.		
North-Eastern	25.04	15.52	23	16
Northern	11.32	6.42	17	11
West-Central	10.95	6.21	14	11
Southern	9.23	5.03	14	9
The Island means	14.13	8.29	17	12

Date.	Standard Time (Approx.)	Intensity.	Notes: where, etc.
		None	Reported.

N.B. IT IS PARTICULARLY REQUESTED TO SEND ALL RAINFALL POSTCARDS IN NOT LATER THAN THE 6TH OF EACH MONTH.

## THE ISLAND—NOVEMBER.

The mean monthly rainfall was, for the sixth successive month, much above the average in all Divisions. The total for the 11 months is 108.00 inches, or 1.78 ins. more than the highest total for a year during the past 63 years, viz., 106.22 in 1916.

The greatest total fall for the month was 60.36 ins. at Moore Town in the North-Eastern Division; and the heaviest fall in 24 hours was 11.86 ins. at Shrewsbury, in the same Division, on the 15th.

The heaviest precipitation appears to have taken place on the 15th and 25th, but the rainfall generally was well distributed, as the mean number of rainy days was 17.5 more than the 33-year average. Cedar Hurst and Hardware Gap, in the North-Eastern Division had most rainy days—29 each.

The mean rainfall in each parish is given below:—

	Inches.		Inches.
Kingston	6.02	St. James	12.05
St. Andrew	18.38	Hanover	10.60
St. Thomas	17.55	Westmoreland	9.16
Portland	37.54	St. Elizabeth	8.76
St. Mary	18.83	Manchester	10.39
St. Ann	12.92	Clarendon	8.78
Trelawny	11.27	St. Catherine	10.82

## CITY OF KINGSTON.

The total rainfall for November was 6.09 ins., and the 60-year normal 2.92 ins., shewing more than twice the normal. There were 15 rainy days against the 49-year average of 8. The upper boundary of Kingston gauged 6.66 ins., with 19 rainy days.

Distant rain was observed to northward on 15 days, to NE on 9 days and to eastward on 3 days.

The mean barometric pressure was 29.867 ins., or 0.025 inch below that of the normal of 29.892 ins. Highest barometer reading 30.006 ins. on 17th at 3 p.m., and the lowest 29.654 ins. (correc for diur. var.) on 1st at 3 p.m., at the period when the storm of October 29th was passing towards Cuba to the northward. The mean pressure continued low from January, with the exception of March, to the present month.

Mean monthly temperature, based upon four observations per day was 76.9 degs., and the 33-year normal 78.3 degs., or 1.3 deg. below the normal, owing to the excess of rainfall. Highest maximum temperature 88.5 degs. on 1st, and the lowest minimum 67.1 degs. on 18th. On the other hand the lowest maximum was 72.8 degs. on 24th, and the highest minimum 74.0 degs. on 15th. Greatest range of temperature 17.5 degs. on 21st. Least range 3.9 degs. on 23rd (a rainy day). The maximum was below 90 degs. throughout, and the minimum below 70 degs. on 10 days.

Mean daily miles of wind registered was 125, and the 20-year normal 139. The greatest number of miles of wind in one day was 361 on 25th, and the least 79 on 2nd.

The mean relative humidity was 85%, and the 33-year normal 82%, shewing 3% excess of normal owing to the excess of rainfall. The mean 7 a.m. was 91%, and the mean 3 p.m. 74%. Lowest 7 a.m. 83% on 18th, and the lowest 3 p.m. 60% on 10th.

The sky was overcast in the early morning on 13 occasions, and in the afternoon on 22 occasions.

Distant lightning at night to north once, to NE twice, and to east twice. Distant thunderstorm to north once and to west on one day. Moderate local thunderstorm on two days. Moderate "norther" on 12th.

The total evaporation for November was 2.95 ins., and the 10-year average 3.55 ins. This small evaporation was no doubt due to the high rainfall.

Mean daily number of sunshine hours 6.1.

## CAYMAN ISLANDS.

Government House, Georgetown, Grand Cayman.—For the month of November, 1933, the total rainfall was 1.75 ins. Greatest fall in 24 hours 1.28 ins. on 25th, with 4 rainy days.

## WEATHER DISTURBANCES.

There were no weather disturbances reported within barometric range of Jamaica.

J. F. BRENNAN,  
Government Meteorologist.

Kingston, December 20th, 1933.